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MAY 1947

**Extent of collective bargaining and  
union recognition, 1946**

**Work stoppages caused by labor-  
management disputes in 1946**

**Reemployment of veterans under  
collective bargaining**

**Wartime and postwar experiences of  
nonferrous metal miners**

**UNITED STATES DEPARTMENT OF LABOR**

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# MONTHLY **LABOR REVIEW**

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

..... + LAWRENCE R. KLEIN, Editor + .....

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## *This Issue in Brief*

### *Work stoppages caused by labor-management disputes in 1946*

Approximately 4.6 million workers were directly involved in the 4,985 work stoppages which began in 1946. Idleness at the plants or establishments directly affected by labor-management disputes totaled 116 million man-days, or 3 times that recorded for 1945. Wages were a major issue in most of the year's controversies. Unions affiliated with the AFL participated in more stoppages than CIO affiliated unions, but the number of workers involved and idleness were greater for CIO than for AFL unions. Government agencies assisted in the settlement of over half of all stoppages, the average duration of which was 24 days. During the year 31 large work stoppages originated which involved 10,000 or more workers. Page 780.

### *Extent of collective bargaining and union recognition, 1946*

Approximately 14.8 million workers, 48 percent of those eligible, were covered by union agreements in 1946. About 7.9 of these were manufacturing wage-earners, while the remainder were from nonmanufacturing industries. Almost 7 and one half million workers were under closed or union-shop agreements, and about 3.6 million under maintenance of membership provisions. Slightly in excess of 6 million were covered by check-off clauses. Of these 3.7 were of the automatic type and 2.4 required individual authorization. Page 765.

### **NOTICE TO READERS OF THE REVIEW**

Effective with Volume 65, No. 1 (July 1947), the page size of the Monthly Labor Review will be changed. The new page size will be 7 $\frac{3}{4}$  by 10 $\frac{1}{4}$  inches, which will provide space for two columns of type on a page and make, we hope, for greater readability. There will be no change in general policy regarding the content of the Review.

### *Wartime and postwar experiences of nonferrous metal miners*

Of a selected group of more than 400 workers engaged in metal mining in the Rocky Mountain States in the spring of 1945, 72 percent were still in the industry in June 1946, and only 3 percent were unemployed. The average gross weekly earnings of the men remaining in metal mines dropped slightly from wartime levels (from \$55.36 in the spring of 1945 to \$54.26 in June 1946) but represented a substantial increase over the 1941 average of \$38.27. Hours of work of this group decreased from an average of 49.7 in the spring of 1945 to 46.3 a week in June 1946. Page 770.

*Wage structure of the rayon and silk industry, June-July 1946*

Straight-time hourly earnings of plant workers in rayon and silk mills in June and July 1946 averaged 79 cents—71 cents in yarn mills and 82 cents in cloth mills. Thirteen percent of the workers received less than 65 cents an hour and about the same proportion (including 4 times as many men as women) earned \$1.00 or more. The industry's work force includes almost equal proportions of men and women, with women predominating in yarn mills and men in cloth mills. Earnings of men averaged about 5 percent higher than those of women in similar occupations. In general, pay levels were higher in large than in small plants, in union as against nonunion mills, and for incentive workers as compared to time workers. Page 816.

*Wage structure of general automobile repair shops, July 1946*

Workers in general automobile repair shops in large cities received straight-time average earnings of \$1.23 an hour in July 1946. Individual worker's earnings ranged from less than 50 cents to more than \$3.00, but approximately a third of them were paid from \$1.00 to \$1.35 an hour. Class A mechanics, the largest occupational group, averaged \$1.46 an hour. Metal body repairmen received the highest rates and washers the lowest. Page 824.

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and highest percentage of nonferrous metal mining in the United States in the spring of 1945. 72 percent were still in the industry in the spring of 1946, and only 3 percent were unemployed. The average from 1945 to 1946 of the men remained in metal mines dropped slightly from wartime levels of 52.58 in the spring of 1945 to 52.28 in June 1946, but represented a substantial increase over the 1941 average of 48.27. Hours of work of this group increased from an average of 49.7 in the spring of 1945 to 48.3 a week in June 1946.



## CURRENT LABOR STATISTICS

V

## Current statistics of labor interest in selected periods

[Available in reprint form]

Item	Unit or base period	1947			1946	1939: Average for year
		March	February	January	March	
<i>Employment and unemployment</i>						
Civilian labor force (BC): Total	Thousands	58,390	58,010	57,790	55,160	<sup>2</sup> 54,230
Male	do.	42,440	42,100	41,860	38,870	<sup>2</sup> 40,950
Female	do.	15,950	15,910	15,930	16,290	<sup>2</sup> 13,280
Employed <sup>1</sup>	do.	56,060	55,520	55,390	52,460	<sup>2</sup> 46,930
Male	do.	40,590	40,090	39,910	36,680	<sup>2</sup> 35,600
Female	do.	15,470	15,430	15,480	15,780	<sup>2</sup> 11,300
Nonagricultural	do.	48,820	48,600	48,890	44,930	<sup>2</sup> 37,430
Agricultural	do.	7,240	6,920	6,500	7,530	<sup>2</sup> 9,500
Unemployed	do.	2,330	2,490	2,400	2,700	<sup>2</sup> 7,300
Male	do.	1,850	2,010	1,950	2,190	<sup>2</sup> 5,350
Female	do.	480	480	450	510	<sup>2</sup> 1,950
Civilian employment in nonagricultural establishments: Total <sup>3</sup>	do.	42,066	41,858	41,803	39,184	30,287
Manufacturing	do.	15,512	15,483	15,372	13,433	10,078
Mining	do.	878	880	883	857	845
Construction <sup>4</sup>	do.	1,555	1,502	1,527	1,203	1,150
Transportation and public utilities	do.	4,022	4,012	4,014	3,983	2,912
Trade	do.	8,564	8,507	8,552	8,197	6,705
Finance, service, and miscellaneous	do.	6,120	6,107	6,071	5,840	4,610
Federal, State, and local government, including Federal force-account construction	do.	5,415	5,367	5,384	5,671	3,987
Military personnel	do.	1,834	1,906	1,987	4,966	367
Production-worker employment:						
Manufacturing	do.	12,617	12,599	12,511	10,819	8,192
Bituminous-coal mining	do.	332	335	336	348	371
Class I steam railroads, including salaried employees (ICC)	do.	1,326	1,325	1,332	1,368	988
Hired farm workers (BAE)	do.	1,545	1,587	1,525	1,489	<sup>1</sup> 1,875
<i>Hours and earnings</i>						
Average weekly earnings:						
Manufacturing		\$47.72	\$47.28	\$47.09	\$42.15	\$23.86
Bituminous-coal mining			\$65.30	\$69.58	<sup>6</sup> \$57.37	\$23.88
Retail trade			\$35.27	\$34.40	<sup>6</sup> \$31.12	\$21.17
Building construction (private)		\$61.23	\$58.92	\$59.97	\$52.87	\$30.39
Average weekly hours:						
Manufacturing	Hours	40.4	40.4	40.6	40.7	37.7
Bituminous-coal mining	do.		43.6	46.7	<sup>6</sup> 45.5	27.1
Retail trade	do.		40.1	39.9	<sup>6</sup> 40.5	43.0
Building construction (private)	do.	38.0	36.9	37.6	37.5	32.6
Average hourly earnings:						
Manufacturing		\$1.180	\$1.170	\$1.161	\$1.035	\$0.633
Bituminous-coal mining			\$1.491	\$1.490	<sup>6</sup> \$1.265	\$0.886
Retail trade			\$0.957	\$0.951	<sup>6</sup> \$0.841	\$0.536
Building construction (private)		\$1.610	\$1.598	\$1.594	\$1.569	\$0.933
Average straight-time hourly earnings in manufacturing, using—						
Current employment by industry			\$1.133	\$1.122	<sup>6</sup> \$0.967	\$0.622
Employment by industry as of January 1941			\$1.131	\$1.120	<sup>6</sup> \$0.982	\$0.640
Quarterly farm wage rate, per day without board (BAE)		<sup>7</sup> \$4.77		\$4.83	<sup>7</sup> \$4.36	<sup>7</sup> \$1.53
<i>Industrial injuries and labor turn-over</i>						
Industrial injuries in manufacturing per million man-hours worked				<sup>8</sup> 14.9	<sup>8</sup> 17.0	15.4
Labor turn-over per 100 employees in manufacturing:						
Total separations		4.8	4.5	4.9	6.6	<sup>9</sup> 3.1
Quits		3.4	3.2	3.5	4.2	<sup>9</sup> 0.8
Lay-offs		0.9	0.8	0.9	1.8	<sup>9</sup> 2.2
Total accessions		5.0	5.0	6.0	7.1	<sup>9</sup> 3.3
<i>Labor-management disputes</i>						
Work stoppages beginning in month:						
Number		325	290	290	440	218
Number of workers involved	Thousands	100	0	100	147	98
All work stoppages during month:						
Number of man-days idle	do.	850	1,230	1,250	13,800	1,484
Man-days idle as percent of available working time		0.1	0.2	0.2	2.3	0.28

See footnotes at end of table.



## Current statistics of labor interest in selected periods—Continued

Item	Unit or base period	1947			1946	1939: Average for year
		March	February	January	March	
<i>Prices</i>						
Consumers' price index (for moderate income families in large cities): All items	1935-39=100	156.3	153.2	153.1	130.2	99.4
All foods	1935-39=100	189.5	182.3	183.8	140.1	95.2
Cereals and bakery products	1935-39=100	148.1	144.1	143.4	110.3	94.5
Meats	1935-39=100	207.6	196.7	199.0	131.3	96.6
Dairy products	1935-39=100	187.5	183.2	190.1	137.0	95.9
Eggs	1935-39=100	174.7	169.9	181.7	139.0	91.0
Fruits and vegetables	1935-39=100	199.9	191.7	187.9	183.4	94.5
Beverages	1935-39=100	186.9	182.8	178.3	124.9	95.5
Fats and oils	1935-39=100	219.1	201.3	201.9	125.9	87.7
Sugar and sweets	1935-39=100	178.6	178.1	176.2	132.4	100.6
Clothing	1935-39=100	184.3	181.5	178.3	153.1	100.5
Rent	1935-39=100	109.0	<sup>9</sup> 108.9	<sup>9</sup> 108.8	108.4	104.3
Fuel, electricity, and ice	1935-39=100	117.6	117.5	117.3	110.5	99.0
Housefurnishings	1935-39=100	182.3	180.8	178.5	150.2	101.3
Miscellaneous	1935-39=100	138.2	137.4	136.6	125.9	100.7
Wholesale price index: All commodities	1926=100	<sup>10</sup> 149.6	<sup>10</sup> 144.6	<sup>10</sup> 141.5	108.9	77.1
All commodities other than farm products	1926=100	<sup>10</sup> 142.2	<sup>10</sup> 138.8	<sup>10</sup> 136.1	103.4	79.5
All commodities other than farm products and foods	1926=100	<sup>10</sup> 131.3	<sup>10</sup> 128.6	<sup>10</sup> 127.6	102.2	83.1
Farm products	1926=100	182.6	170.4	165.8	133.4	65.3
Foods	1926=100	167.6	162.0	156.2	109.4	70.4
<i>National income and expenditures</i>						
National income payments (BFDC)	Millions	\$14,613	\$13,467	\$14,402	\$13,199	<sup>1</sup> \$5,809
Consumer expenditures for goods and services (BFDC)	do			<sup>11</sup> \$36,115	<sup>11</sup> \$30,056	<sup>11</sup> \$16,651
Retail sales (BFDC)	do	\$8,745	\$7,464	\$7,839	\$7,473	<sup>12</sup> \$3,379
<i>Production</i>						
Industrial production index, unadjusted (FR): Total	1935-39=100	186	185	184	164	100
Manufactures	1935-39=100	193	193	192	170	109
Minerals	1935-39=100	142	140	140	130	106
Bituminous coal (BM)	Thousands of short tons	54,995	50,640	58,869	56,849	32,905
Car loadings index, unadjusted (FR)	1935-39=100	137	133	138	132	101
Electric energy (FPC): Total	Millions of kw.-hr.	25,544	23,698	25,975	21,675	( <sup>13</sup> )
Utilities (production for public use)	do	21,246	19,615	21,639	17,800	<sup>14</sup> 10,324
Industrial establishments	do	4,298	4,083	4,336	3,875	( <sup>12</sup> )
<i>Construction</i>						
Construction expenditures	Millions	\$914	\$863	\$927	\$728	<sup>15</sup> \$463
Value of urban building construction started	do	\$381	\$277	\$266	\$743	( <sup>12</sup> )
New nonfarm family dwelling units		61,700	44,400	41,100	88,100	<sup>15</sup> 42,900

<sup>1</sup> Source: Bureau of Labor Statistics unless otherwise indicated. Abbreviations used: BC (Bureau of the Census); ICC (Interstate Commerce Commission); BAE (Bureau of Agricultural Economics); BFDC (Bureau of Foreign and Domestic Commerce); FR (Federal Reserve); BM (Bureau of Mines); FPC (Federal Power Commission). Most of the current figures are preliminary.

<sup>2</sup> 10-month average—March to December 1940—not comparable with later figures. Revisions are in process.

<sup>3</sup> Excludes employees on public emergency work, these being included in unemployed civilian labor force. Civilian employment in nonagricultural establishments differs from nonagricultural employment in civilian labor force mainly because of the inclusion in the latter of such groups as self-employed and domestic and casual workers.

<sup>4</sup> Revisions of the construction series include the transfer of Federal force-account employment to the government series. Certain other revisions have been made in this and some of the other series. (See p. 921 of this issue.)

<sup>5</sup> March.

<sup>6</sup> February.

<sup>7</sup> April.

<sup>8</sup> December 1945.

<sup>9</sup> All cities not surveyed: Rent index of January based on 5 cities and that of February on 6 cities.

<sup>10</sup> Includes current motor vehicle prices. See note on page 892 of this issue.

<sup>11</sup> Fourth quarter of 1946, 1945, and 1939 consecutively.

<sup>12</sup> Not available.

# MONTHLY LABOR REVIEW

MAY 1947

## Extent of Collective Bargaining and Union Recognition, 1946<sup>1</sup>

### *Union Agreement Coverage*

APPROXIMATELY 14.8 million workers were employed under conditions determined by written collective-bargaining agreements in 1946, an increase of 1 million workers compared with 1945. The workers covered by agreement represent 48 percent of the 31 million<sup>2</sup> engaged in occupations in which the unions have been organizing and endeavoring to obtain written agreements. The percentage covered was the same in 1945, but fewer workers—approximately 29 million—were eligible for agreement coverage in that year. Nonmanufacturing industries accounted for much of the increase in employees eligible for agreement coverage.

About 7.9 million production workers in manufacturing were covered by union agreements in 1946 (69 percent of those employed) compared to 8 million (67 percent) a year earlier. In the nonmanufacturing industries 6.9 million workers, or 35 percent of the potentials were employed under union agreements. Part of the decrease in total coverage in the manufacturing industries can be accounted for by reduction in employment in such industries as aircraft and ship-building, in which a large proportion of the workers are covered by union agreement. In the nonmanufacturing industries the increase in the number of workers can be accounted for by higher employ-

<sup>1</sup> Prepared in the Bureau's Industrial Relations Branch with Philomena Marquardt in immediate charge of assembling the information.

For similar data for previous years, see Monthly Labor Review, April 1946, April 1945, April 1944, February 1943, May 1942, and March 1939.

<sup>2</sup> This estimate of 31 million includes all wage and salary workers except those in executive, managerial, and some professional positions, but excludes all self-employed, domestic workers, agricultural wage workers on farms employing less than 6 persons, Federal and State government employees, teachers, and elected or appointed officials in local governments.

It should be noted that the number of workers covered by union agreements is not the same as union membership. Except under closed- or union-shop conditions, agreements cover nonmembers as well as members employed within the given bargaining unit. On the other hand, some union members may be working in unorganized plants and many civil-service employees and teachers are members of unions but are not employed under the terms of bilateral written agreements.

ment in such industries as construction, in which the proportion of workers covered by collective bargaining is very high.

The extent of union agreement coverage in the various manufacturing and nonmanufacturing industries is shown in table 1.

TABLE 1.—*Proportion of wage earners under union agreements in 1946*

MANUFACTURING INDUSTRIES

80-100 percent	60-79 percent	40-59 percent	20-39 percent	1-19 percent
Agricultural equipment. Aircraft and parts. Aluminum. Automobiles and parts. Breweries. Carpets and rugs, wool. Cement. Clocks and watches. Clothing, men's. Clothing, women's. Electrical machinery. Furs and garments. Glass and glassware. Leather tanning. Meat packing. Newspaper printing and publishing. Nonferrous metals and products, except those listed. Rayon yarn. Rubber. Shipbuilding. Steel, basic. Sugar.	Book and job printing and publishing. Coal products. Canning and preserving foods. Dyeing and finishing textiles. Gloves, leather. Machinery, except agricultural equipment and electrical machinery. Millinery and hats. Paper and pulp. Petroleum refining. Railroad equipment. Steel products. Tobacco. Woolen and worsted textiles.	Baking. Chemicals, excluding rayon yarn. Flour and other grain products. Furniture. Hosiery. Jewelry and silverware. Knit goods. Leather, luggage, handbags, novelties. Lumber. Paper products. Pottery, including chinaware. Shoes, cut stock and findings. Stone and clay products, except pottery.	Beverages, nonalcoholic. Confectionery products. Cotton textiles. Dairy products. Silk and rayon textiles.	(None.)

NONMANUFACTURING

80-100 percent	60-79 percent	40-59 percent	20-39 percent	1-19 percent
Actors and musicians. Airline pilots and mechanics. Bus and streetcar, local. Coal mining. Construction. Longshoring. Maritime. Metal mining. Motion-picture production. Railroads. Telegraph. Trucking, local and intercity.	Radio technicians. Theater-stage hands, motion-picture operators.	Bus lines, intercity. Light and power. Newspaper offices. Telephone.	Barber shops. Building servicing and maintenance. Cleaning and dyeing. Crude petroleum and natural gas. Fishing. Hotels and restaurants. Laundries. Nonmetallic mining and quarrying. Taxicabs.	Agriculture. <sup>1</sup> Beauty shops. Clerical and professional, excluding transportation, communication, theaters and newspapers. Retail and wholesale trade.

<sup>1</sup> Less than 1 percent.

*Extent of Union Recognition by Types*<sup>3</sup>

Approximately 4.8 million workers were covered by closed- and union-shop with preferential hiring provisions in 1946, compared to 4.25 millions in 1945. Union-shop clauses, without preference in

<sup>3</sup> For definitions of types of union recognition, see footnote to table 3.



hiring, were specified for almost 2.6 million workers in 1946 and 2 million in 1945. The number of workers covered by maintenance-of-membership decreased from more than 3.9 millions in 1945 to 3.6 million in 1946.

Table 2 indicates the changes in the proportion of workers under each type of union recognition from 1941 through 1946. During the war there was a major shift from sole bargaining and bargaining for members only, to maintenance of membership. The 1946 figures indicate a change from the latter type, and to the union or closed shop.

Table 3 lists the industries in which at least half of the workers who are under agreement are covered by the type of union recognition specified.

A few industries (such as shipbuilding and iron and steel products) which were listed in the 1945 report do not appear in the present report because 50 percent of the workers in those industries are no longer covered by any type of recognition clause. Carpets and rugs and woolen and worsted were both listed under maintenance of membership in 1945 but in 1946 over half of the workers in those industries who were covered by union agreements were under union-shop provisions.

The most marked change has taken place in the automobile industry. In 1945 over half of the covered workers were under maintenance-of-membership provisions; in 1946 a little over 10 percent had such provisions, while a third were covered by union-shop requirements, a fourth by sole-bargaining arrangements, and another fourth by maintenance-of-union-dues requirements.

TABLE 2.—Changes in union recognition in the United States, 1941–46

Item	1941	1942	1943	1944	1945	1946
Eligible for union-agreement coverage:						
Number (in millions).....	1 35	31	32	30.25	29	31.2
Percentage under agreement.....	30	40	45	47	48	48
Percentage distribution <sup>2</sup>						
Workers under agreements providing for—						
Closed shop.....	40	45	30	28	30	33
Union shop.....			20	18	15	17
Maintenance of membership.....			20	27	29	25
Preferential hiring.....			2	2	3	3
Other <sup>4</sup> .....			28	25	23	22
Total.....		100	100	100	100	100

<sup>1</sup> This figure is not comparable with the number listed as eligible for other years since it includes all salaried workers and all government employees. The figure which would be comparable is 31 million.

<sup>2</sup> Percentages not strictly comparable, year by year, because of slight changes in volume of employment during the period.

<sup>3</sup> No data.

<sup>4</sup> No membership or hiring requirements are mentioned in these agreements, which have clauses specifying sole bargaining, maintenance of union dues, and bargaining for members only.

TABLE 3.—Industries with 50 percent or more of the workers under agreement covered by specified types of clauses <sup>1</sup>

## MANUFACTURING INDUSTRIES

Closed or union shop with preferential hiring	Union shop	Maintenance of membership	Preferential hiring	Sole bargaining
Baking. Breweries. Canning and preserving foods. Clothing, men's. Clothing, women's. Dyeing and finishing textiles. Gloves, leather. Glass containers. Hosiery. Printing and publishing. Shoes, cut stock and findings.	Carpets and rugs, wool. Flat glass. Knit goods. Paper and allied products. Sugar, beet. Woolen and worsted textiles.	Aircraft and parts. Cigarettes and tobacco. Chemicals. Cotton textiles. Electrical machinery. Machinery, except electrical. Meat packing. Nonferrous metals. Petroleum refining. Rubber. Steel, basic.	Pottery.	Cement. Sugar, cane.

## NONMANUFACTURING INDUSTRIES

Construction. Trucking and warehousing.	Coal mining.	Crude petroleum and natural gas. Metal mining. Public utilities, electric light and power, water and gas. Telegraph.	Longshoring. Maritime.	Railroads. Telephone.

<sup>1</sup> Definitions of the various types of union recognition are as follows:

**Closed shop.**—All employees under the closed-shop agreement must be members of the union at the time of hiring and must remain members in good standing during their period of employment.

**Hiring through the union,** unless it is unable to supply the required number of workers within a given period, is required under most of the closed-shop agreements and those employees who are hired through other procedures must join the union before they start to work.

**Union shop.**—Workers employed under a union-shop agreement need not be union members when hired, but they must join the union within a specified time, usually 30 to 60 days, and remain members during the period of employment.

**Union shop with preferential hiring.**—When the union-shop agreements specify that union members shall be given preference in hiring or that the hiring shall be done through the union, the effect is very much the same as the closed-shop agreement.

**Modified union shop.**—In some cases the union shop is modified so that those who were employed before the union shop was established are not required to become union members.

**Maintenance of membership.**—This type of union security requires that all employees who are members of the union a specified time after the agreement is signed, and all who later join the union, must remain members in good standing for the duration of the agreement. Following the pattern of the maintenance-of-membership clauses established by the National War Labor Board, most of the agreements with this type of union-security clause provide for a 15-day period during which members may withdraw from the union if they do not wish to remain members during the life of the agreement.

**Maintenance of union dues.**—During 1946 a few agreements covering workers employed by large companies which had specified maintenance of membership in 1945 were modified to provide sole bargaining with the check-off of union dues for all union members, as a condition of employment. Clauses of this type (which specify this form of irrevocable check-off) are found in agreements negotiated with the General Motors Corp., the Goodrich Tire and Rubber Co., Akron, the International Harvester Co., East Moline, Ill., the Western Electric Co., and Yale & Towne.

**Preferential hiring.**—No union membership is required under this type of clause but union members must be hired if available. When the union cannot supply workers, the employer may hire nonmembers and they are not required to join the union as a condition of employment.

**Sole bargaining.**—Under some agreements no requirement for union membership or for hiring through the union is specified. The union is the sole bargaining agent for all employees and negotiates the agreement covering all workers in the bargaining unit whether they are members of the union or not.

**Members only.**—A few agreements stipulate that the union shall act as bargaining agent for its members only, and the agreement does not cover other workers.

## Check-Off Arrangements

Approximately 6 million workers (41 percent of all those under union agreements) were covered by some form of check-off provisions in 1946. This is an increase of nearly three-quarters of a million from the 1945 total. Automatic deduction of dues was specified for a little over half of these workers while the others specified check-off of union



dues only for employees who give the employer an individual written authorization. Some of these may be withdrawn at any time; others remain in effect for the life of the agreement.

In the manufacturing industries 4.7 million workers (61 percent) had their dues checked off compared to 4 million (about 50 percent) in 1945. The number of nonmanufacturing workers covered by check-off arrangements remained at about 1.3 million for 1946, but this was not quite 20 percent of the workers under agreement; in 1945, with only 13.8 million under agreement, the same number of workers covered brought the proportion to 24 percent.

Changes in check-off arrangements from 1942 through 1946, given in table 4, show a gradual increase in the number of workers covered by such provisions. Table 5 lists the industries which have at least half of the workers under agreement covered by one type of check-off. A few industries listed for 1945, such as chemicals, steel products, and men's clothing, no longer have 50 percent of the covered workers under a single type of check-off.

TABLE 4.—Changes in check-off arrangements in the United States 1941-46

Item	1941	1942	1943	1944	1945	1946
Number under agreement (in millions).....	10.3	12.5	13.8	14.3	13.8	14.8
	Percentage distribution <sup>1</sup>					
Workers under agreements providing for—						
Automatic check-off.....	(2)	12	18	21	23	24
Voluntary check-off.....	(2)	8	14	20	16	17
No check-off.....	(2)	80	68	59	61	59
Total.....		100	100	100	100	100

<sup>1</sup> Percentages not strictly comparable, year by year, because of slight changes in volume of employment during the period.

<sup>2</sup> No data.

TABLE 5.—Industries with 50 percent or more of workers under agreement covered by specified type of check-off

Manufacturing		Nonmanufacturing	
Voluntary check-off	Automatic check-off	Voluntary check-off	Automatic check-off
Cement. Clocks and watches. Glass, flat. Petroleum and coal products. Sugar, cane. Textiles, except carpets and rugs (woolen) and hosiery.	Aircraft engines. Aluminum. Automobiles. Carpets and rugs (wool). Cigarettes and tobacco. Electrical machinery. Hosiery. Leather, except gloves and shoes. Meat packing and slaughtering. Nonferrous smelting and refining. Rubber tires and tubes. Steel, basic. Sugar, beet.	Crude petroleum and natural gas products. Telephone.	Coal mining. Iron mining. Telegraph.

## Wartime and Postwar Experiences of Nonferrous-Metal Miners<sup>1</sup>

DESPITE MINE-LABOR SHORTAGES which persisted well into the postwar period, 28 percent of a selected group of wartime miners had left the nonferrous mines of the Western States by mid-1946. Although some of these workers had returned to their prewar activities and communities, others had established themselves in new jobs and homes. Unemployment did not constitute a serious problem for the individuals studied, as only 3 percent—less than the national average—were jobless in the summer of 1946.

The 97-cent average hourly rate earned by the miners during the war period was not high relative to other war industries; yet for the group studied, it represented an average increase of 23 cents an hour over their prewar earnings. In addition, the opportunity to work a considerable amount of overtime at premium rates drew substantial numbers of workers to the nonferrous mines. Gross weekly earnings in the spring of 1945 averaged about \$55 for a 50-hour week. In the summer of 1946, weekly hours were down to 46, but earnings declined only slightly to an average of \$54.

### *The Wartime Labor Force*

Nonferrous-metal mining in the West was one of the first industries to present a serious labor-recruitment problem during the war.

The reasons for the industry's inability to recruit and retain an adequate work force were many and difficult to overcome. Most important, perhaps, was the fact that wage rates in mining were substantially lower than those in other industries which competed with the mines for their labor supply. Although some wage increases were granted, they were not large enough to overcome the relative disadvantage. Furthermore, working conditions in the mines are hot, dusty, and generally unpleasant. Much of the work is strenuous, and for the underground occupations, quite hazardous. Selective Service and voluntary enlistment drained the mines of many workers in the younger age groups, and few replacements were available within the mining areas. Men in good physical condition were needed to undertake the arduous work.<sup>2</sup> Unlike other industries, the mines

<sup>1</sup> Prepared in the Bureau's Wage Analysis Branch. The field work for this study was conducted by staff members of the Bureau's regional office in Denver, Colo.

The present report is one of a series of studies initiated by the Bureau of Labor Statistics in the spring of 1945. The data on which this report is based were gathered in a series of three surveys. The first was made in the spring of 1945 by personal interview; the next two were made, by mail, in January and June 1946.

<sup>2</sup> In this as in other industries, physical requirements were lowered during the war. Of the 431 workers studied, over a seventh reported physical disabilities of various sorts. On the whole, however, employment seems to have been restricted to those with only minor impairments. Others with serious defects were used largely in nonproduction jobs.

could not utilize reserves of women in the mining towns and surrounding areas. Finally, the mining communities were small, isolated, and lacking in housing, recreational, and other community facilities.

Typical of the industry and the region are the 5 communities in which the 431 workers interviewed by the Bureau of Labor Statistics were living in the spring of 1945: Butte, Mont., with 37,081 population in 1940, is the largest. Silver City, N. Mex. (5,044 inhabitants in 1940), is a trading center as well as a mining town. The mining area forms a triangle encompassing several smaller communities, one of which is Hurley, an attractive company town. Park City, Utah, although small (3,739 population in 1940) is nevertheless a well-established community. Leadville, Colo., producing two-thirds of the world's supply of molybdenum in 1939, was once twice as large as Denver; in 1940 only 4,774 persons were living there. The company-built town of Stibnite, Idaho, an extremely isolated place with winter temperatures 8 months of the year, had only 120 inhabitants in 1940; by early 1945 the war-worker influx raised the number to 721.

Various expedients were tried to improve conditions in the mining towns. Federally financed construction in Silver City, for example, did something to alleviate the housing shortage, but demand for accommodations continued to exceed supply. Rents, even where legal restrictions were observed, were high in terms of the workers' incomes. Migrants from lower-rent areas were especially hard hit by wartime prices in the mining communities.

#### MIGRATION

Aside from army releases, labor for the mines during the war came largely from the farms and small towns in the Rocky Mountain area, although a small proportion was drawn from the dry farming land lying immediately to the east. Thus, nearly 9 out of every 10 of the workers studied in 1945 had been living in the 5 States of Colorado, Idaho, Montana, New Mexico, and Utah in January 1941. This is in sharp contrast to the situation in the southern California aircraft industry, where the January 1941 residence of about two-fifths of the aircraft workers studied was outside of southern California.

The drift toward nonferrous mining within the Rocky Mountain region began even earlier than 1941. Although 310 of the workers studied were already in the industry in January 1941, only 289 reported it as their usual source of employment. Between January 1941 and the spring of 1945, 131 workers moved from one community to another in order to seek work or to take jobs already offered. Most of the wartime migrants (three-fifths of the 131 men) had changed communities only once, approximately a fourth had moved twice, and the remainder, three or more times.



One of the most restless of the men provides an interesting, though not a typical, case. Including two periods when he was not seeking work and a short stretch in the Navy, he had 12 different jobs in 8 cities in 4 States during the 51 months prior to April 1945. Moving about with his wife and child cost him \$500. At the end of this period he was still looking for greener pastures, which in 1945 he thought he would find in Alaska.

The small-town and rural origin of the group of 431 workers is indicated by the fact that in 1941 less than 3 percent had been living in cities of more than 50,000 population. In the spring of 1945, 9 percent were more than 500 miles away from their 1941 homes, and nearly 8 percent were 100 to 500 miles distant. A great majority (three-fourths) were either still in the same community or within 50 miles of their prewar residences.

Four-fifths of all the migrants were under 45 years of age (table 1). Married workers tended to migrate even more readily than those who were single, nor did family size appear to be a limiting factor. Workers with 3 to 5 members in their families showed the greatest mobility; almost 35 percent of this group changed communities, as against about 25 percent of the men with either smaller or larger families.

TABLE 1.—*Characteristics of men employed in the mining areas, spring 1945*

Characteristics	Total number of workers in survey	Migrants <sup>1</sup>	
		Number	Percent of total group
All workers.....	431	131	30
Race:			
White.....	381	120	31
Other.....	50	11	22
Age:			
Under 20 years.....	5		
20-44 years.....	279	107	38
45 years and over.....	147	24	16
Marital status:			
Single.....	40	8	20
Married.....	376	118	31
Other.....	15	5	33
Size of family:			
1-person families <sup>2</sup> .....	32	9	28
2-person families.....	108	26	24
3-5 person families.....	249	86	35
6-8 person families.....	35	9	26
9-or-more-person families.....	7	1	14

<sup>1</sup> Includes workers who moved from one city to another between January 1941 and the spring of 1945 to seek jobs or to take jobs already offered.

<sup>2</sup> Persons living alone without dependents.

#### PERSONAL CHARACTERISTICS

Entrance of workers into the armed forces is reflected in the age distribution of the 431 workers studied. In the spring of 1945 only 3 percent were under 25 years of age, compared with 17 percent of the

total mine force in 1940 in the 5 States surveyed. The marked decline in the proportion of men in the youngest age bracket was accompanied by an increase from 23 to 30 percent in the age group of 35 to 44. Those 55 and older accounted for only 10 percent of the laborforce before the war, as against 17 percent in the survey group. Despite the raising of the age level, two-thirds of the wartime labor force were under 45.

One of the older employees was 71 years old. At the outbreak of the war he operated his sugar-beet farm. In order to make more money, he took a job, in July 1942, at 72 cents an hour as a timber framer in a gold mine. At the urging of his son he came to Stibnite and secured work as a watchman at 75 cents an hour. Another man at the age of 60 returned to the labor market after 5 years of retirement. From 1901 to 1940, he had his own blacksmith shop. In the spring of 1945 he became a mine watchman, earning \$39 a week. In November 1941, a 61-year-old deputy sheriff gave up his post paying \$37 a week, became a working foreman in a mine, and averaged more than \$60 weekly. A 67-year-old man who had been a school teacher and later a bookkeeper for 13 years, became a janitor—a job he hoped to keep after the war.

Of the 50 workers of Mexican descent included in this study, a larger proportion (16 percent) was under 25 years of age than among the other workers (1 percent); moreover, the former group had very few workers over 45. Several reasons may account for the age differences observed. The tendency of Mexicans to marry early probably meant that a relatively larger number were likely to be deferred from military service because of family responsibilities. In addition, since most of them were employed as common laborers, physical fitness for hard work was a prerequisite. The comparative abundance of unskilled Mexican labor in the region probably enabled management to be fairly selective in choosing men from this group even during wartime.

A fairly typical case is that of a worker of Mexican descent in this region. He was only 32 years old in 1945 but already had a large family—a wife and 6 children. He started to work as a ranch handy man at the age of 14 (after only 2 years of schooling). He remained at this job for 14 years, earning (in March 1941) \$30 a month, with board and room; later in the year, he found a similar job at \$40 a month. A year and a half later he became a mucker in a mine, and his earnings rose from \$40 a month to \$40 a week. After 5 months in the mine he advanced to all-round miner, averaging over \$64 a week.

Most of the miners (87 percent) were married. Because of limited employment opportunities for women in mining communities, very few of the workers (about 14 percent) reported that there were other



employed members in their families. Moreover, a relatively large proportion of the miners were called upon to spread their earnings over fairly large families. Twenty-eight percent of the workers claimed only 1 dependent, 55 percent had between 2 and 4 dependents, and 9 percent had 5 or more persons to support. Only 33 men (approximately 8 percent of the total group) claimed no financial responsibility for anyone other than themselves.

#### EDUCATION AND TRAINING

The level of educational attainment found among the 431 men was low. About 55 percent had from 1 to 8 years of grade school; 39 percent had at least a year of high school; and 4 percent had gone through a year or more of college. No formal schooling was reported by 2 percent of the men.

Vocational training undertaken before 1941 was reported by approximately 11 percent of the workers studied. Only 6 percent of the men had served an apprenticeship. For the most part, those who prepared themselves in this manner did not plan to be miners. Some, for instance, had taken specialized work in oil refining, repairing, or telegraphy, and other courses in business schools. A few of the workers who received some type of vocational training after the beginning of the war indicated that it was in preparation for jobs in other industries. The old-time miners had learned their jobs largely through actual experience, and the newcomers followed their example.

#### UNIONIZATION

The Rocky Mountain mine fields have long been a center of unionism. Consequently, during World War II, when many new members joined the ranks of organized labor, a relatively large group of experienced union men were to be found in the western mining industry. Whereas 37 percent of the metal miners studied had been members of a union at some time prior to January 1941, 79 percent were union members by the spring of 1945.

#### *Wartime Occupational Shifts*

In the spring of 1945 over two-fifths of the workers still held the same job as in January 1941, and over half were with the same employer. A little over a third of the workers had changed jobs two or more times. Some of the job changes were merely transfers within the same mine or smelter; others were caused by upgrading. Not all the workers who changed employers did so in order to find more desirable employment. Some had been inducted into the Army and then released on condition that they enter mining. Others were forced to

find new jobs because the gold or silver mine in which they had been employed was shut down.

Most of the men (nearly four-fifths in June 1946 and a slightly larger proportion before the war) were, or considered themselves to be, craftsmen and manual workers, and almost all in this group were in mining occupations. The changes effected in the distribution of these workers, according to broad levels of skill, are as follows:

	Percentage distribution	
	Prewar <sup>1</sup>	Spring 1945
Skilled workers.....	66	55
Semiskilled workers.....	23	32
Unskilled workers.....	10	13
Not reported.....	1	
Total.....	100	100
Numbers of workers.....	338	418

<sup>1</sup> Based on usual prewar occupation, and accordingly includes both the employed and unemployed.

The wartime drift to jobs at skill levels lower than those held before the war was in part encouraged by the wages offered at the mines and by the opportunity to work overtime at premium pay, which resulted in increased weekly earnings even for those whose rates had risen only slightly or not at all.

### Wartime Hours and Earnings

In the spring of 1945 straight-time hourly rates for the metal miners averaged 97 cents (table 2). With an average workweek in the mines of nearly 50 hours, gross weekly earnings, however, averaged \$53.23. Deductions for income tax, social security, and union dues reduced the miners' "take-home pay" to \$47.52.

TABLE 2.—*Distribution of 431 nonferrous metal miners, by straight-time hourly rates and gross weekly earnings, spring 1945*

Straight-time hourly rate	Number of workers	Percentage distribution	Gross weekly earnings	Number of workers	Percentage distribution
Under 70 cents.....	7	2	Under \$35.....	6	1
70 and under 80 cents.....	12	3	\$35 and under \$40.....	13	3
80 and under 90 cents.....	62	14	\$40 and under \$45.....	18	4
90 cents and under \$1.00.....	200	47	\$45 and under \$50.....	124	29
\$1.00 and under \$1.10.....	100	23	\$50 and under \$55.....	129	30
\$1.10 and under \$1.20.....	39	9	\$55 and under \$60.....	58	14
\$1.20 and over.....	6	1	\$60 and under \$65.....	13	3
Not reported.....	5	1	\$65 and under \$70.....	51	12
Total.....	431	100	\$70 and under \$75.....	14	3
			Not reported.....	5	1
Average hourly rate.....	\$0. 97		Total.....	431	100
			Average weekly earnings.....	\$53. 23	

For identical workers, the 97-cent average hourly rate in mining was about 23 cents (or 31 percent) higher than in 1941. Slightly less than a fifth of the workers showed advances that exceeded 50 percent, although a substantial majority realized much smaller gains. In contrast, 14 workers (5 percent) reported a reduction in hourly rates; 10 workers (3 percent) reported that their rates remained unchanged between 1941 and 1945.

Despite increases in the wage scale, the miners' earnings were only moderate. The 1943 annual wage incomes of the workers studied averaged \$2,650 (table 3). In 1944 the average rose by about 4 percent. Only about a third in each year earned more than \$3,000. Over half of the workers were well within the \$2,000 to \$3,000 class; if this interval is extended to \$3,500, three-fourths of the miners in 1943 and over four-fifths in 1944 are accounted for.

TABLE 3.—*Distribution of 387 identical nonferrous metal miners by annual wage income, 1943 and 1944*

Income class	Number of workers		Percentage distribution	
	1943	1944	1943	1944
Under \$1,000.....	3	1	1	( <sup>1</sup> )
\$1,000 and under \$1,500.....	14	6	4	2
\$1,500 and under \$2,000.....	44	23	11	6
\$2,000 and under \$2,500.....	108	101	28	26
\$2,500 and under \$3,000.....	91	124	24	32
\$3,000 and under \$3,500.....	88	100	23	26
\$3,500 and under \$4,000.....	33	25	9	6
\$4,000 and under \$4,500.....	5	7	1	2
\$4,500 and over.....	1	—	( <sup>1</sup> )	—
Total.....	387	387	<sup>2</sup> 100	<sup>2</sup> 100
Average annual wages.....	\$2,650	\$2,752	—	—

<sup>1</sup> Less than a half of 1 percent.

<sup>2</sup> Discrepancies due to rounding.

In evaluating the wartime incomes of this group of workers, it should be noted that a majority were not only married, but also the sole wage earners in their families. Over three-fourths had no other employed person in their family; 13 percent had only one other employed member. Owing to the almost complete absence of factories in the mining towns, the working wives and daughters were most frequently employed in some service trade in a low-paying job. One, for example, earned \$24 weekly as a sales clerk; another took mail orders for dresses; a third worked on Saturdays as a cashier in a dry-goods store at \$3.75 a day. Restaurant jobs of female members of miners' households brought in earnings ranging from \$15 a week to \$100 a month.



*Postwar Experiences*

Unlike the situation in many war industries, the end of the war resulted in little slackening of demand for nonferrous metals. With continuing labor shortages and declining employment through the early months of 1946, production fell below the corresponding period of 1945 and was insufficient to meet current demands.

The supply of labor available for mine employment increased gradually with the demobilization of the armed forces. Although the trend of employment was reversed by the last quarter of 1945, critical labor shortages persisted in the western mining areas as substantial numbers of workers left the mines to seek other types of employment.

**EMPLOYMENT STATUS**

In June 1946, re-interviews of 404 workers showed that only 72 percent were still attached to mining (table 5). Unemployment (table 4) (3 percent of the entire group) was, however, less than for the civilian labor force as a whole (approximately 5 percent). Nearly two-thirds of the men reporting in June 1946 were with the same employers as in the spring of 1945; a fifth had found jobs elsewhere, and 5 percent had entered businesses of their own. Withdrawals from the labor market were few.

TABLE 4.—*Employment status of 404 nonferrous metal miners, by age, June 1946*<sup>1</sup>

Employment status	Number of workers			Percentage distribution		
	Total	Under 45 years	45 and over	Total	Under 45 years	45 and over
Employed by same employer as in spring 1945.....	259	156	103	64	58	76
Employed by different employer.....	86	75	11	21	28	8
Self-employed.....	22	18	4	5	7	3
Unemployed.....	13	5	8	3	2	6
In armed forces.....	10	10	—	2	4	—
Not in labor force.....	14	4	10	3	1	7
Total.....	404	268	136	<sup>2</sup> 100	100	100

<sup>1</sup> Of the original 431 workers surveyed in the spring of 1945, 27 could not be located in June 1946.

<sup>2</sup> Discrepancies due to rounding.

Workers 45 years or older were unemployed to a greater extent (6 percent) than younger men (2 percent), although a larger proportion of the former than the latter had remained with their wartime employers. Among the self-employed, there were relatively more younger than older men.

Although 28 percent of the workers had left metal mining by June 1946 and scattered to many fields, not all returned to their prewar

activities. Thus, in January 1941, agriculture accounted for 5 percent of the workers surveyed, but for only 2 percent in June 1946 (table 5). Construction, manufacturing, and Government also had small losses, but the service trades showed gains.

TABLE 5.—*Distribution of nonferrous metal miners, January 1941 and June 1946, by industry group*

Industry group	Number of workers		Percentage distribution	
	January 1941	June 1946	January 1941	June 1946
Agriculture, forestry, and fisheries.....	23	8	5	2
Mining.....	310	289	72	72
Construction.....	16	14	4	3
Manufacturing.....	12	8	3	2
Wholesale and retail trade.....	13	14	3	3
Finance, insurance, and real estate.....	1		(1)	
Transportation, communication, and public utilities.....	13	11	3	3
Services <sup>1</sup> .....	11	12	2	3
Government.....	12	4	3	1
In armed forces.....	4	10	1	3
Not in the labor force.....	7	14	2	3
Unemployed.....	8	13	2	3
Not reported.....	1	7	(1)	2
Total.....	431	404 <sup>2</sup>	100	100

<sup>1</sup> Less than a half of 1 percent.

<sup>2</sup> Includes protective-, domestic-, and personal-service workers, building-service workers, and porters.

<sup>3</sup> 27 workers could not be located in the June resurvey.

#### HOURS AND EARNINGS

Despite postwar changes in jobs and skill ratings of many of the wartime miners studied, weekly earnings were reduced only slightly. In this respect, the picture is quite different from that observed among other groups of war workers covered in the Bureau's special surveys. Moreover, the postwar experience of the metal miners surveyed contrasts sharply with that of manufacturing workers. For the latter, average weekly earnings declined nearly 11 percent (from \$46.02 to \$41.15) between the spring of 1945 and the following winter, whereas the reduction amounted to only about 7 percent (from \$55.36 to \$51.59) for the metal miners (table 6). By mid-1946 advances in wage rates partly offset the cut in working hours and the shift to lower-paid jobs, so that for both groups weekly earnings increased approximately 5 percent. The higher level of the miners' weekly pay is largely attributable to their longer workweek. In the spring of 1945 the mine workers averaged nearly 50 hours, in contrast to 44 hours in manufacturing; in June 1946 the miners worked 46.3 hours on the average, and manufacturing employees, 39.9 hours.



TABLE 6.—Changes in gross weekly earnings and average weekly hours of 126 identical nonferrous metal miners, for specified periods

Item and period	All workers	Workers with—		Age groups	
		Same employer as in spring 1945	Different employer	Under 45 years	45 and over
Average gross weekly earnings:					
1941.....	\$38.27	\$38.34	\$37.80	\$39.11	\$36.76
Spring 1945.....	55.36	55.27	55.98	56.31	53.65
Winter 1945-46.....	51.59	52.19	47.48	51.55	51.67
June 1946.....	54.26	54.44	53.03	54.70	53.47
Average weekly hours:					
1941.....	46.8	47.0	45.4	46.7	47.1
Spring 1945.....	49.7	49.7	49.5	50.1	49.1
Winter 1945-46.....	46.8	46.9	46.1	46.3	47.6
June 1946.....	46.3	46.2	47.1	46.6	45.8
Number of workers.....	126	110	16	81	45

Men who left the mines and found jobs elsewhere showed greater reductions in weekly pay in the first 6 months after the change than did those who remained in the mines. For the first group, the 1945 spring-to-winter decline averaged 15 percent, in contrast to a reduction under 6 percent for the latter. Both groups, however, recouped the greater part of this loss by June 1946, bringing them, in money terms, close to their wartime positions. The rise in the prices of living essentials, however, made the gains actually realized considerably less than the monetary increases in weekly earnings suggest.

Although more of the older than of the younger men remained in their wartime jobs, no significant difference is apparent between the postwar earnings experience of the two groups.

## Work Stoppages Caused by Labor-Management Disputes in 1946<sup>1</sup>

THE 4,985 WORK STOPPAGES arising out of labor-management controversies in 1946 exceeded the previous year's total of 4,750; the number was also slightly greater than the former peak in 1944, when 4,956 stoppages were recorded by the Bureau of Labor Statistics. Approximately 4.6 million workers were directly involved in the stoppages which began in 1946—a larger number than in any previous year on record. Idleness at the plants or establishments directly affected by stoppages aggregated 116 million man-days, or triple the time lost in 1945 (38 million man-days). The average duration of a strike in 1946 was approximately 24 calendar days, or about four times as long as during the war period.

Wages were a major issue in most controversies. Protection of workers' "take-home" pay was emphasized in many of the earlier reconversion wage disputes, but later in the year, after the easing and subsequent abandonment of price controls, demands for pay increases to match rising living costs became more frequent.<sup>2</sup>

Thirty-one large work stoppages, involving 10,000 or more workers each, began in 1946. They affected 2,925,000 workers, or about two-thirds of the total involved during the year. Including the 6 stoppages of 10,000 or more workers which began in late 1945 and continued into the early months of 1946, idleness resulting from these large stoppages accounted for nearly 82 million of the 116 million man-days of idleness reported for all work stoppages during the year.

The time lost from stoppages in 1946 amounted to 1.4 percent of the estimated working time of that portion of the country's labor force which might have become engaged in labor conflicts. Total production in 1946, as measured by the Federal Reserve Board's index, climbed to successive record peacetime levels during the year. Employment in nonagricultural establishments likewise averaged higher than in prewar years and was about a third larger than in 1939.

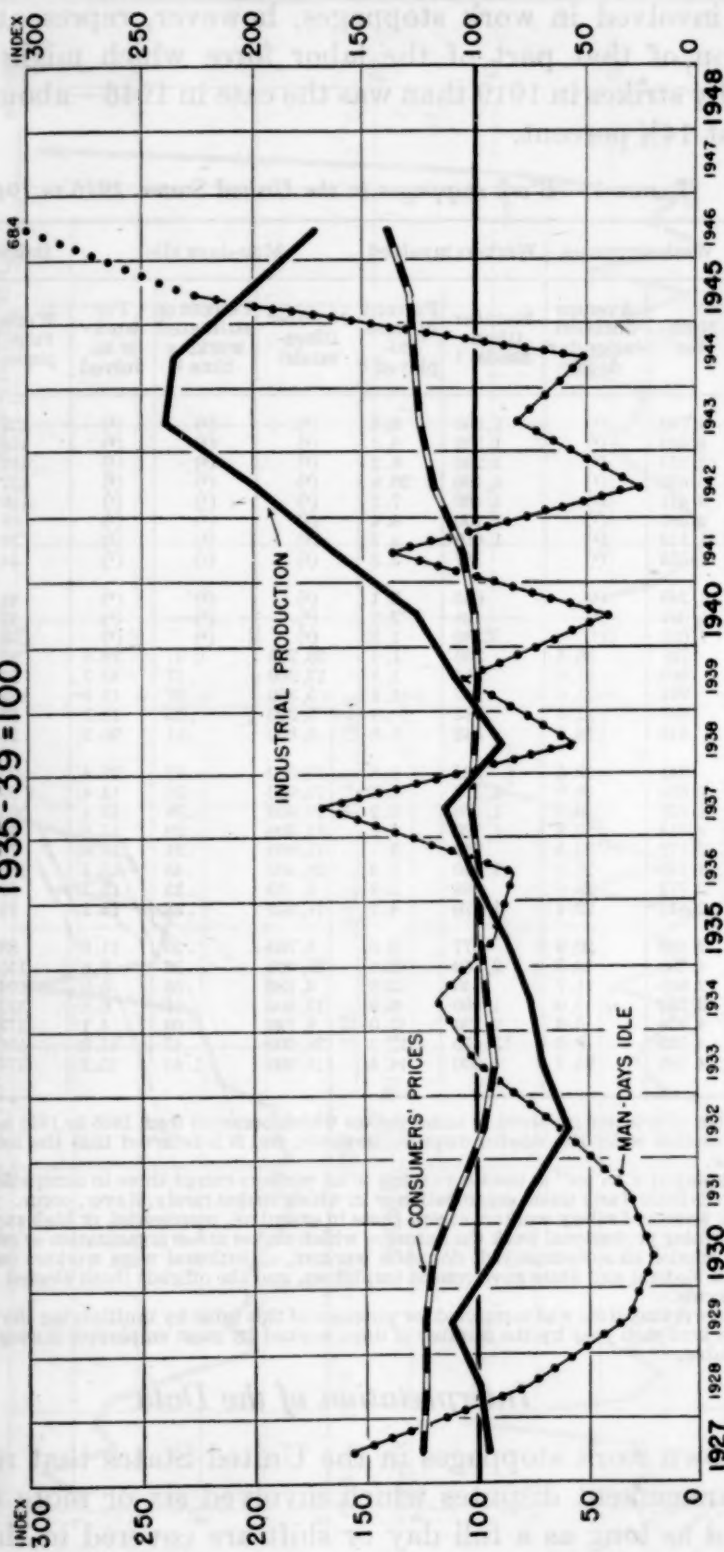
Historically, 1946 is most comparable to 1919, the first full year following World War I, when rising prices and union recognition or security were among the major problems confronting American industry and wage earners. The 3,630 strikes in 1919 involved well over 4.1 million workers (table 1). Information on time lost is not available for years prior to 1927, but incomplete records indicate that

<sup>1</sup> Prepared by Don Q. Crowther and the staff of the Labor-Management Disputes Division, under the direction of Nelson M. Bortz, in the Bureau's Industrial Relations Branch.

<sup>2</sup> For a more detailed analysis of the issues involved in stoppages during the year after VJ-day, see *Postwar Work Stoppages Caused by Labor-Management Disputes*, in *Monthly Labor Review*, December 1946 (p. 872).

# INDUSTRIAL PRODUCTION, CONSUMERS' PRICES, AND IDLENESS DURING WORK STOPPAGES

1935-39=100



UNITED STATES DEPARTMENT OF LABOR  
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there was less idleness in 1919 than in 1946. The number of workers directly involved in work stoppages, however, represented a larger proportion of that part of the labor force which might have been affected by strikes in 1919 than was the case in 1946—about 21 percent as against 14½ percent.

TABLE 1.—*Work stoppages in the United States, 1916 to 1946*

Year	Work stoppages		Workers involved		Man-days idle			Indexes (1935-39=100)		
	Number	Average duration (calendar days)	Number (thousands) <sup>1</sup>	Percent of total employed <sup>2</sup>	Number (thousands)	Percent of estimated working time <sup>3</sup>	Per worker involved	Work stoppages	Workers involved	Man-days idle
1916 <sup>1</sup>	3,789	(9)	1,600	8.4	(9)	(9)	(9)	132	142	(9)
1917	4,450	(9)	1,230	6.3	(9)	(9)	(9)	155	109	(9)
1918	3,353	(9)	1,240	6.2	(9)	(9)	(9)	117	110	(9)
1919	3,630	(9)	4,160	20.8	(9)	(9)	(9)	127	370	(9)
1920	3,411	(9)	1,460	7.2	(9)	(9)	(9)	119	130	(9)
1921	2,385	(9)	1,100	6.4	(9)	(9)	(9)	83	98	(9)
1922	1,112	(9)	1,610	8.7	(9)	(9)	(9)	39	143	(9)
1923	1,553	(9)	757	3.5	(9)	(9)	(9)	54	67	(9)
1924	1,249	(9)	655	3.1	(9)	(9)	(9)	44	58	(9)
1925	1,301	(9)	428	2.0	(9)	(9)	(9)	45	38	(9)
1926	1,035	(9)	330	1.5	(9)	(9)	(9)	36	29	(9)
1927	707	26.5	330	1.4	26,200	0.37	79.5	25	29	155
1928	604	27.6	314	1.3	12,600	.17	40.2	21	28	75
1929	921	22.6	280	1.2	5,350	.07	18.5	32	26	32
1930	637	22.3	183	.8	3,320	.05	18.1	22	16	20
1931	810	18.8	342	1.6	6,800	.11	20.2	28	30	41
1932	841	19.6	324	1.8	10,500	.23	32.4	29	29	62
1933	1,095	16.9	1,170	6.3	16,900	.36	14.4	59	104	100
1934	1,356	19.5	1,470	7.2	19,600	.38	13.4	65	130	116
1935	2,014	23.8	1,120	5.2	15,500	.29	13.8	70	99	91
1936	2,172	23.3	789	3.1	13,900	.21	17.6	76	70	82
1937	4,740	20.3	1,860	7.2	28,400	.43	15.3	166	165	168
1938	2,772	23.6	688	2.8	9,150	.15	13.3	97	61	54
1939	2,613	23.4	1,170	4.7	17,800	.28	15.2	91	104	105
1940	2,508	20.9	577	2.3	6,700	.10	11.6	88	51	40
1941	4,288	18.3	2,360	8.4	23,000	.32	9.8	150	210	136
1942	2,968	11.7	840	2.8	4,180	.05	5.0	104	75	25
1943	3,752	5.0	1,980	6.9	13,500	.15	6.8	131	176	80
1944	4,956	5.6	2,120	7.0	8,720	.09	4.1	173	188	51
1945	4,750	9.9	3,470	12.2	38,000	.47	11.0	166	308	224
1946	4,985	24.2	4,600	14.5	116,000	1.43	25.2	174	408	684

<sup>1</sup> The number of workers involved in some strikes which occurred from 1916 to 1926 is not known. The missing information is for the smaller disputes, however, and it is believed that the totals here given are fairly accurate.

<sup>2</sup> "Total employed workers" as used here refers to all workers except those in occupations and professions in which there is little if any union organization or in which strikes rarely, if ever, occur. In most industries it includes all wage and salary workers except those in executive, managerial, or high supervisory positions or those performing professional work the nature of which makes union organization or group action impracticable. It excludes all self-employed, domestic workers, agricultural wage workers on farms employing less than 6, all Federal and State government employees, and the officials (both elected and appointed) in local governments.

<sup>3</sup> Estimated working time was computed for purposes of this table by multiplying the average number of employed workers each year by the number of days worked by most employees during the year.

<sup>4</sup> Not available.

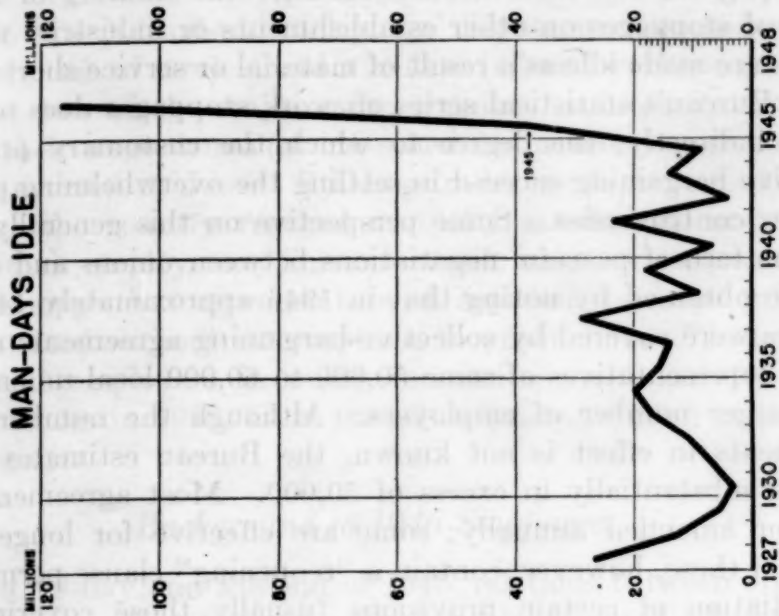
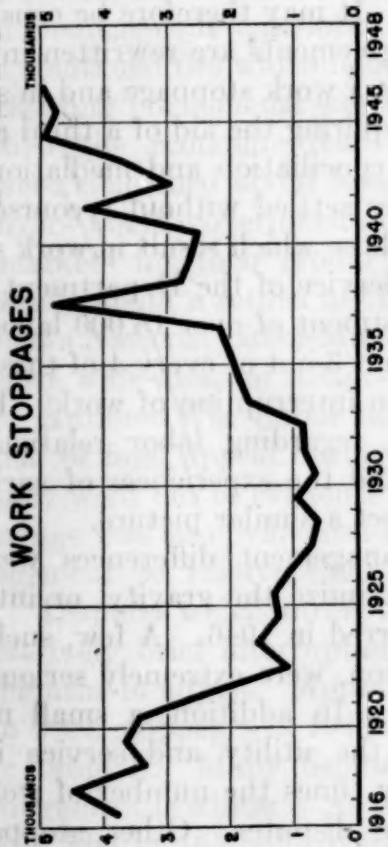
### *Interpretation of the Data*

All known work stoppages in the United States that resulted from labor-management disputes which involved six or more workers and continued as long as a full day or shift are covered in this as in previous reports.<sup>3</sup> Information on "workers involved" and "man-days

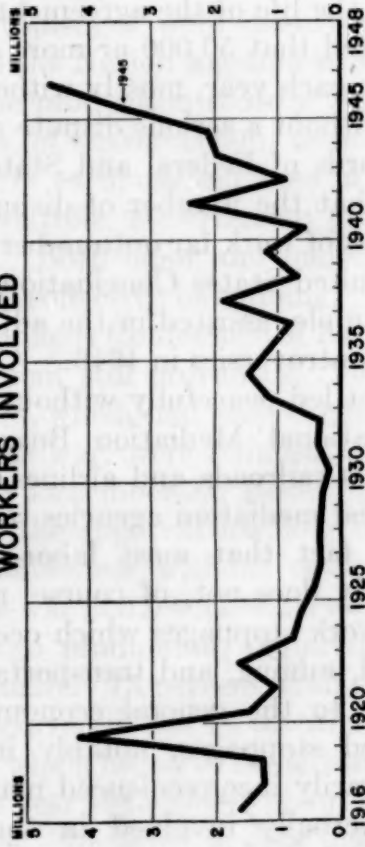
<sup>3</sup> For a fuller discussion of the scope and method of work-stoppage statistics used by the Bureau, see *Work Stoppages in 1945*, Monthly Labor Review, May 1946 (pp. 734-735).



# WORK STOPPAGES BY YEARS



## WORKERS INVOLVED



UNITED STATES DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS

idle" includes all workers made idle in establishments directly involved in stoppages. The data do not measure the indirect or secondary effects of stoppages on other establishments or industries whose employees are made idle as a result of material or service shortages.

The Bureau's statistical series on work stoppages does not reflect, except indirectly, the degree to which the customary practices of collective bargaining succeed in settling the overwhelming proportion of labor controversies. Some perspective on this generally unpublicized pattern of peaceful negotiations between unions and employers may be obtained by noting that in 1946 approximately 14.8 million workers were covered by collective-bargaining agreements negotiated by the representatives of some 50,000 to 60,000 local unions with an even larger number of employers. Although the number of union agreements in effect is not known, the Bureau estimates that this total is substantially in excess of 50,000. Most agreements are revised or amended annually; some are effective for longer periods. Many of these, however, contain a "reopening" clause permitting the renegotiation of certain provisions (usually those covering wages) during the life of the agreement. It may therefore be conservatively estimated that 50,000 or more agreements are rewritten in whole, or in part, each year, mostly without a work stoppage and in some cases even without a serious dispute requiring the aid of a third party.

Records of Federal and State conciliation and mediation agencies show that the number of disputes settled without recourse to interruptions of work far outnumber those which result in work stoppages. The United States Conciliation Service of the Department of Labor, for example, assisted in the adjustment of over 15,000 labor-management controversies in 1946. About 3 out of every 4 of these disputes were settled peacefully without an interruption of work. Reports of the National Mediation Board, regarding labor relations on the Nation's railroads and airlines, and the experiences of various State and local mediation agencies reflect a similar picture.

The fact that most labor-management differences were settled amicably does not, of course, minimize the gravity, or intensity, of some work stoppages which occurred in 1946. A few, such as those in steel, mining, and transportation, were extremely serious and disruptive to the general economy. In addition, a small number of localized stoppages, notably in the utility and service industries, temporarily inconvenienced many times the number of workers who were actually involved in these disputes. Other stoppages, also relatively few in number, found the employer and sometimes the general public caught in a cross-fire between two or more union groups.

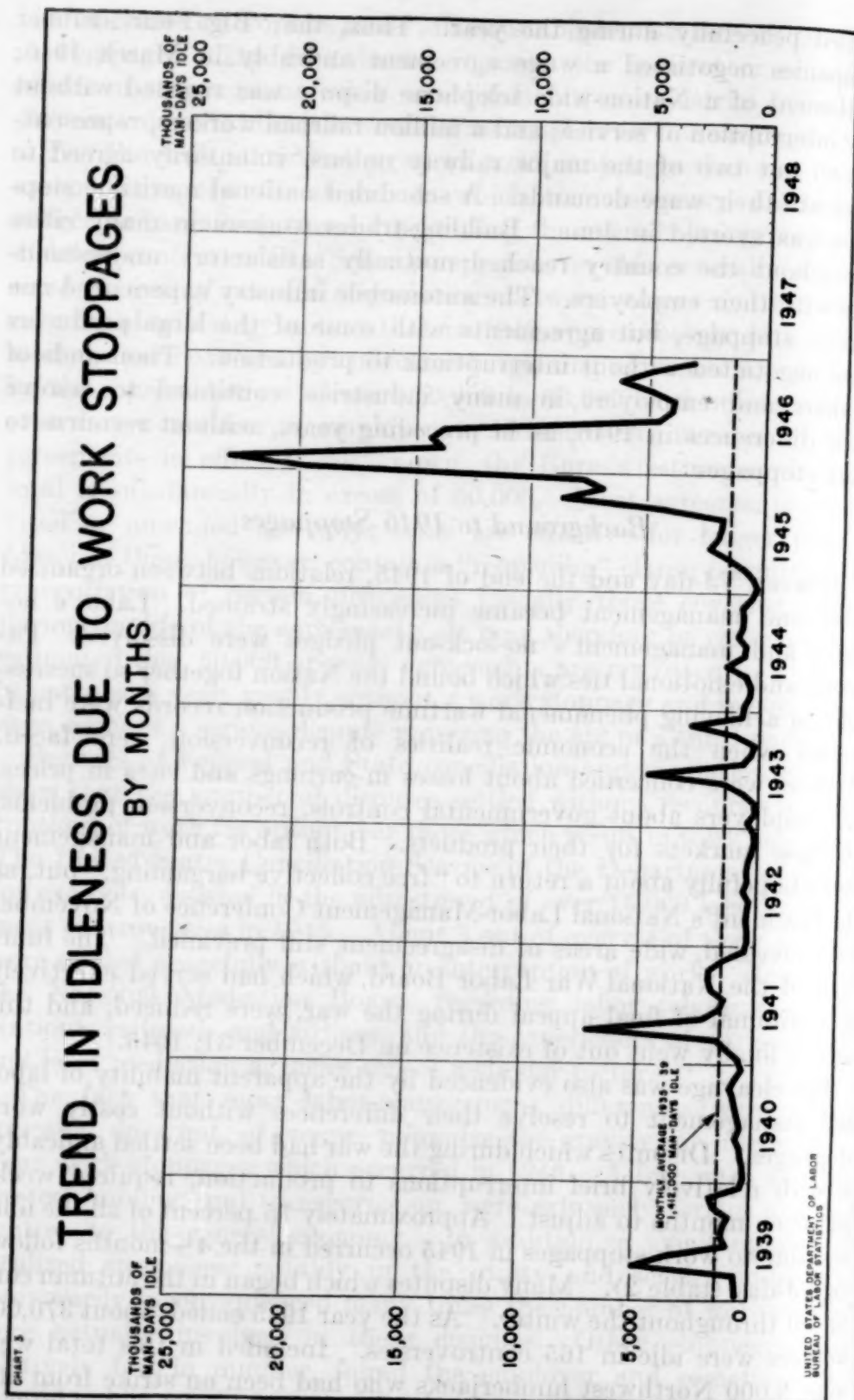
It is equally true, however, that for each disruptive work stoppage there were many significant labor-management disputes which were

settled peacefully during the year. Thus, the "Big Four" rubber companies negotiated a wage agreement amicably in March 1946; settlement of a Nation-wide telephone dispute was reached without any interruption of service; and a million railroad workers, representing all but two of the major railway unions, voluntarily agreed to arbitrate their wage demands. A scheduled national maritime stoppage was averted in June. Building-trades workers in many cities throughout the country reached mutually satisfactory understandings with their employers. The automobile industry experienced one serious stoppage, but agreements with some of the large producers were negotiated without interruptions to production. Thousands of workers and employers in many industries, continued to resolve their differences in 1946, as in preceding years, without recourse to work stoppages.

### *Background to 1946 Stoppages*

Between VJ-day and the end of 1945, relations between organized labor and management became increasingly strained. Labor's no-strike and management's no-lock-out pledges were dissolved. Patriotic and emotional ties which bound the Nation together so successfully in achieving phenomenal wartime production records were ineffectual when the economic realities of reconversion were faced. Workers were concerned about losses in earnings and rises in prices, and employers about governmental controls, reconversion problems, and new markets for their products. Both labor and management spoke hopefully about a return to "free collective bargaining," but, as the President's National Labor-Management Conference of November 1945 revealed, wide areas of disagreement still prevailed. The functions of the National War Labor Board, which had served effectively as a tribunal of final appeal during the war, were reduced, and this agency finally went out of existence on December 31, 1945.

The cleavage was also evidenced by the apparent inability of labor and management to resolve their differences without costly work stoppages. Disputes which during the war had been settled amicably, or with relatively brief interruptions to production, required weeks and even months to adjust. Approximately 75 percent of all the idleness due to work stoppages in 1945 occurred in the 4½ months following VJ-day (table 2). Many disputes which began in the autumn continued throughout the winter. As the year 1945 ended, about 370,000 workers were idle in 165 controversies. Included in this total were some 8,000 Northwest lumberjacks who had been on strike from late September; 13,000 glass workers and 37,000 San Francisco machinists and shipyard workers who had stopped work in October; and nearly a





quarter of a million auto workers, textile-mill hands, and truck drivers who had quit their jobs for picket lines during November 1945.

### *Trend of Strike Activity in 1946*

With the coming of the New Year, other momentous disputes were destined to result in stoppages, because, in many instances, prolonged negotiations were unsuccessful. On December 31, 1945, President Truman appointed a fact-finding board in the hope of averting a steel strike. In September of that year, the United Steelworkers of America (CIO) had submitted its demands for a \$2-a-day wage increase, which had been rejected by the industry. AFL and CIO packing-house workers had sought upward revisions in pay since August 1945. Representatives for more than a million railroad workers were conferring with carrier representatives over questions of higher wages.

By mid-January 1946 negotiations gave way to strike action. Approximately 174,000 employees of three large electrical manufacturing concerns stopped work January 15. Conferences between these companies and the United Electrical, Radio, and Machine Workers of America (CIO) had been in progress since the autumn of 1945. A day later 93,000 AFL and CIO workers of major meat-packing houses walked out. Less than a week afterward (January 21) the country's steel furnaces and mills ceased operations. The steel strike, involving over 1,000 large and small basic steel producers and fabricators and about 750,000 workers, was the largest strike ever recorded in the United States. At the height of these and of about 250 smaller disputes then in progress the number of workers directly involved in labor-management work stoppages approximated 1,600,000.

The controversy between the steel workers and the largest steel producer, the United States Steel Corp., was terminated February 15 with agreement by the parties to accept a wage increase of 18½ cents previously recommended by President Truman. Settlements were reached with several other large basic-steel producers in the next few days; but, in the case of many smaller steel fabricators, the stoppage continued for weeks pending adjustment of local union-management issues and clarification of the extent to which increases in steel prices were to be permitted by the OPA.

Idleness, which in January had mounted to a record-breaking total of 19.7 million man-days, climbed still further in February to approximately 23 million man-days. In March, however, this figure was almost halved, as both the UAW<sup>4</sup>-General Motors and the UE<sup>5</sup>-

<sup>4</sup> The United Automobile, Aircraft, and Agricultural Implement Workers of America.

<sup>5</sup> The United Electrical, Radio, and Machine Workers of America.

General Electric disputes were terminated. The number of smaller stoppages rose, however, partly because many union-management contracts expired and partly because of the widespread desire of workers for wage increases in line with the 18½-cent pattern which evolved out of the steel settlement and the mid-February revision of the Government's wage-stabilization regulations.

April marked a further upturn in the number of strikes. Idleness also increased as the industry-wide controversy between the bituminous-coal operators and the United Mine Workers of America (AFL) brought a suspension of work by 340,000 soft-coal miners beginning April 1. This dispute continued into May, so that little bituminous coal was produced during that month, except for a 2-week truce in mid-May. On May 22 the Government seized the coal mines and a week later it concluded an agreement with the union.

The crisis in railroad labor-management negotiations also reached the breaking point, and the Government took control of the railroads on May 17. But this action, as well as the intercession by the White House, failed to forestall a Nation-wide 2-day strike of two large unaffiliated railroad unions—the Brotherhood of Locomotive Engineers and the Brotherhood of Railroad Trainmen. These two organizations had rejected the recommendations on wages and rules of a presidentially appointed fact-finding board, and their 48-hour suspension of work, from May 23 to May 25, paralyzed rail transportation throughout the country.

With the settlement of the railroad controversy, the 2-months' bituminous-coal strike, and the 8-day stoppage of 75,000 anthracite miners (the latter settled early in June), labor-management stoppages of large industry-wide proportions momentarily ended. For the first time since September 1945 idleness in June dropped below 5 million man-days. The first 6 months of 1946, however, had marked the most concentrated period of labor-management strife in the country's history. Although less than half of the year's total number of work stoppages began in the first half of 1946, these were by far the largest of any recorded during the year. They involved approximately 2,970,000 workers and, including stoppages carried over from 1945, resulted in 88.9 million man-days of idleness—77 percent of the year's total lost time, estimated at 116 million man-days.

During the 2 summer months of July and August, 1,100 stoppages occurred. Most of these dealt with wage issues. Virtually all were small, affecting relatively few workers, and idleness during each of these 2 months averaged less than in any month after VJ-day.

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TABLE 2.—*Work stoppages in 1945 and 1946, by months*

Month	Number of stoppages—		Workers involved in stoppages—			Man-days idle during month	
	Begin-ning in month	In effect during month	Beginning in month	In effect during month		Number	Percent of estimated working time <sup>2</sup>
				Number	Percent of total employed <sup>1</sup>		
1945							
January.....	234	265	46,700	55,100	0.19	199,000	0.03
February.....	279	313	111,000	118,000	.41	388,000	.06
March.....	382	422	197,000	226,000	.78	775,000	.10
April.....	431	486	306,000	327,000	1.13	1,470,000	.20
May.....	433	517	333,000	358,000	1.24	2,220,000	.29
June.....	482	576	332,000	382,000	1.32	1,890,000	.25
July.....	523	611	325,000	413,000	1.44	1,770,000	.24
August.....	447	586	271,000	354,000	1.24	1,710,000	.24
September.....	573	730	526,000	611,000	2.26	4,340,000	.73
October.....	474	737	551,000	852,000	3.15	8,610,000	1.39
November.....	358	619	420,000	660,000	2.40	6,930,000	1.20
December.....	134	367	50,400	504,000	1.82	7,720,000	1.39
1946							
January.....	337	502	1,370,000	1,740,000	6.10	19,700,000	3.13
February.....	290	515	134,000	1,500,000	5.35	22,900,000	4.19
March.....	440	698	147,000	1,010,000	3.49	13,800,000	2.28
April.....	504	827	566,000	1,180,000	4.00	14,300,000	2.19
May.....	376	768	569,000	1,510,000	5.03	13,700,000	2.06
June.....	388	758	181,000	455,000	1.48	4,580,000	.75
July.....	563	910	228,000	408,000	1.32	3,970,000	.58
August.....	560	965	227,000	425,000	1.35	3,900,000	.56
September.....	499	853	356,000	499,000	1.57	4,880,000	.77
October.....	516	848	307,000	467,000	1.47	6,220,000	.85
November.....	344	677	435,000	707,000	2.20	4,980,000	.77
December.....	168	402	76,400	500,000	1.54	3,130,000	.46

<sup>1</sup> See footnote 2 to table 1.<sup>2</sup> See footnote 3 to table 1.

September, however, brought a generally higher rate of strike activity. A serious disruption of trucking operations in and about New York City began the first of the month. On September 5 the Seafarers' International Union of North America (AFL) called a Nation-wide cessation of work after the National Wage Stabilization Board refused to approve wage increases for unlicensed seamen higher than those previously approved in June for similar groups in the National Maritime Union of America (CIO). This stoppage was characterized by AFL leaders as a protest against Government "interference" with "free collective bargaining." The stoppage was also supported by AFL and CIO longshoremen and seamen. The dispute, insofar as the Seafarers' International Union was concerned, was settled with a Government directive amending the stabilization regulations then applicable. The National Maritime Union, however, insisted that the unlicensed seamen whom it represented should have their contracts amended to incorporate the higher wage rates obtained by the AFL seamen's union. This controversy was resolved in favor of the workers after a further stoppage of approximately 10 days.



Not all of the more than 750 deep-sea vessels tied up in the AFL and CIO stoppages of unlicensed maritime workers had weighed anchor before the expiration of contracts on September 30 between ship operators and licensed seamen. These workers, represented by the Masters, Mates, and Pilots of America (AFL) and the National Marine Engineers' Beneficial Association (CIO), sought to have included in their new collective bargaining agreements a greater degree of union recognition or "security," together with higher wages. On the Pacific Coast, contracts between the International Longshoremen's and Warehousemen's Union (CIO) and various waterfront employers also had expired on September 30 without the parties agreeing on new terms. Over 1,000 ships were landlocked by these stoppages, and the total number of workers idle was estimated at approximately 142,000. On the East and Gulf Coasts, settlements between the two licensed groups of maritime employees and ship operators were reached by the end of October, but on the West Coast the disputes involving seamen and longshoremen continued for nearly a month longer.

The autumn maritime stoppages raised the number of workers involved in labor-management disputes above the level of the months immediately preceding. Idleness totaled nearly 5 million man-days in September and over 6 million man-days in October. In November, the lost time of almost 5 million man-days was substantially affected by the second industry-wide bituminous-coal stoppage which began November 21 and continued through December 7. In this controversy the Government, which had been operating the mines under the so-called Krug-Lewis agreement of May 29, 1946, insisted that the United Mine Workers could not unilaterally terminate their contract. After the miners suspended work the Government sought, and obtained, a Federal court order instructing union officials to terminate the stoppage and the miners to resume work. When the terms of the court's order were not complied with, Justice T. Alan Goldsborough of the United States District Court of the District of Columbia fined the union \$3,500,000 and its president, John L. Lewis, \$10,000 for contempt of court. The miners were ordered back to work by Mr. Lewis on December 7, and both the union and the Government took prompt steps to bring the legal issues in dispute before the United States Supreme Court.<sup>6</sup>

With the termination of the bituminous-coal controversy, strike activity dropped to its lowest level since VJ-day. The number of

<sup>6</sup> On March 6, 1947, the Supreme Court ruled that the anti-injunction provisions of the Norris-LaGuardia Act were not applicable to the federally operated bituminous-coal mines. The Court upheld the lower court's contempt conviction but ruled that the fine against the United Mine Workers was to be reduced from \$3,500,000 to \$700,000, provided the union withdrew its contract termination notice. Action to this effect was taken by the UMWA president on March 19 and on April 24 Justice Goldsborough ordered a refund of \$2,800,000.



stoppages beginning in December totaled 168 and workers involved aggregated less than 80,000. At the year's end, fewer than 60,000 workers were idle in the 160 labor-management controversies then in effect. Total idleness was only about an eighth as great as during the final weeks of 1945.

### *Characteristics of Work Stoppages in 1946*

#### INDUSTRIES AFFECTED

The impact of the large labor-management controversies upon the Nation's industries is reflected in the data presented in table 3.<sup>7</sup> Although the large-scale stoppages in such industries as steel, meat packing, electrical manufacturing, and transportation accounted for a high proportion of the total time lost, there were significant or unusual stoppages in a number of industries not disclosed by the over-all statistics. Thus, controversies involving relatively small numbers of public-school teachers, municipal employees, and utility workers had a widespread effect upon their communities. Teachers, as members of the "white collar" or "fixed income" group, were among those salaried workers particularly hard-pressed by rising living costs. They participated in 16 stoppages during the year—an unusually high number as compared with previous years. Municipal workers, whose wages in many instances are also comparatively inelastic, ceased work in some 60 cases in efforts to improve their pay or conditions of employment.

Twenty-four stoppages occurred in the heat, light, and power industries. In most of these disputes essential services were generally continued—in some cases with the aid of supervisory personnel—and settlements were usually reached in a relatively few days. The most serious and largest utility strike of the year involved the Duquesne Light Co. and associated companies in the Pittsburgh area. This stoppage continued for 27 days and disrupted commercial and industrial activity in a large segment of western Pennsylvania.

Public attention was also focused on stoppages in urban and inter-urban public transportation systems. Philadelphia, Los Angeles, and Detroit were among the larger cities affected by such localized controversies. Shipments of express, parcels, and freight in and about New York City were substantially curtailed on several occasions because of trucking strikes. Operations of a large air-transport company were temporarily suspended as a result of the first strike of airline pilots in the history of the country. There were also a few serious

<sup>7</sup> Where workers in a particular industry were involved in 2 or more stoppages during the year, they were counted separately for each dispute. This explains why in some industries (bituminous-coal mining, for example) more workers were involved in work stoppages than the total number actually employed in these industries.

TABLE 3.—Work stoppages beginning in 1946, by industry group<sup>1</sup>

Industry group	Stoppages beginning in 1946			Man-days idle during 1946	
	Number	Workers involved		Number	Percent of estimated working time <sup>2</sup>
		Number	Percent of total employed <sup>3</sup>		
All industries.....	14,985	4,600,000	14.5	116,000,000	1.43
Manufacturing.....	12,887	2,210,000	16.7	81,200,000	2.42
Iron and steel and their products.....	478	859,000	54.1	23,500,000	5.81
Electrical machinery.....	134	232,000	40.1	10,800,000	7.30
Machinery (except electrical).....	324	244,000	20.5	13,700,000	4.51
Transportation equipment (except automobiles).....	61	59,200	10.8	2,340,000	1.68
Automobiles and automobile equipment.....	132	163,000	21.7	15,000,000	7.81
Nonferrous metals and their products.....	134	78,200	18.2	4,280,000	3.91
Lumber and timber basic products.....	61	16,400	2.6	959,000	.60
Furniture and finished lumber products.....	208	44,900	10.0	1,550,000	1.36
Stone, clay, and glass products.....	136	32,000	7.1	1,180,000	1.02
Textile-mill products.....	188	50,700	3.8	1,360,000	.39
Apparel and other finished products made from fabrics and similar materials.....	173	24,300	2.1	574,000	.19
Leather and leather products.....	100	29,000	7.2	434,000	.42
Food and kindred products.....	278	167,000	13.4	2,220,000	.70
Tobacco manufactures.....	14	4,190	4.3	255,000	1.02
Paper and allied products.....	76	21,500	5.1	606,000	.57
Printing, publishing, and allied industries.....	67	14,200	3.2	326,000	.28
Chemicals and allied products.....	122	48,100	7.9	1,190,000	.77
Products of petroleum and coal.....	21	4,280	2.5	108,000	.24
Rubber products.....	89	99,400	39.1	813,000	1.26
Miscellaneous manufacturing industries.....	120	22,900	4.9	612,000	.51
Nonmanufacturing.....	2,108	2,360,000	12.8	34,100,000	.72
Agriculture, forestry, and fishing.....	28	17,500	( <sup>3</sup> )	219,000	( <sup>3</sup> )
Mining.....	570	974,000	120.1	21,400,000	10.35
Construction.....	351	146,000	10.3	1,450,000	.40
Trade.....	385	64,100	.9	882,000	.05
Finance, insurance, and real estate.....	29	2,140	( <sup>3</sup> )	14,700	( <sup>3</sup> )
Transportation, communication, and other public utilities.....	479	1,020,000	27.1	9,020,000	.94
Services—personal, business, and other.....	206	54,700	( <sup>3</sup> )	924,000	( <sup>3</sup> )
Government—administration, protection, and sanitation.....	62	9,660	( <sup>3</sup> )	51,000	( <sup>3</sup> )

<sup>1</sup> The total number of stoppages shown is less than the sum of the group figures which follow. The reason is, a few strikes which extended into 2 or more industry groups have been counted separately (in this table) in each industry group affected, with allocation of workers involved and man-days idle to the respective groups. Not included in this table were 3 strikes of a general or city-wide character (at Rochester, N. Y., Oakland, Calif., and Portland, Maine) which involved 74,000 workers and 128,000 man-days of idleness.

<sup>2</sup> See footnotes 2 and 3 to table 1.

<sup>3</sup> Not available.

<sup>4</sup> The number of workers involved was greater than the total employed in the mining industry; many workers participated in more than 1 stoppage during the year and were counted separately each time. Most bituminous-coal miners were out twice during the year.

work stoppages involving local telephone, telegraph, and wireless companies. As a result of these and other larger stoppages previously described, more workers were directly involved in labor-management controversies in the field of transportation, communication, and public utilities in 1946 than in any previous year on record.

#### WORK STOPPAGES BY STATES

Although New York had the largest number of work stoppages which began in 1946, Pennsylvania's time loss occasioned by labor-management controversies was approximately twice as great as that for any other State (table 4). This, of course, reflects the importance

of the steel and coal industries in Pennsylvania. Michigan and Ohio each experienced over 10 million man-days of idleness and were closely followed by such other industrialized States as New York and Illinois. Stoppages in these five States combined accounted for about half of the country's total idleness.

TABLE 4.—Work stoppages in 1946, by States

State	Stoppages beginning in 1946			Man-days idle during 1946 (all stoppages)	
	Number	Workers involved		Number	Percent of total
		Number	Percent of total		
All States.....	14,985	4,600,000	100.0	116,000,000	100.0
Alabama.....	118	121,000	2.6	2,060,000	1.8
Arizona.....	20	6,980	.2	257,000	.2
Arkansas.....	40	14,300	.3	226,000	.2
California.....	246	258,000	5.6	6,090,000	5.2
Colorado.....	26	26,200	.6	590,000	.5
Connecticut.....	86	59,200	1.3	3,160,000	2.7
Delaware.....	17	5,890	.1	95,000	.1
District of Columbia.....	29	21,800	.5	180,000	.2
Florida.....	42	17,200	.4	152,000	.1
Georgia.....	61	27,700	.6	540,000	.5
Idaho.....	13	3,290	.1	33,100	( <sup>2</sup> )
Illinois.....	438	339,000	7.4	9,040,000	7.8
Indiana.....	171	178,000	3.9	5,470,000	4.7
Iowa.....	66	40,700	.9	561,000	.5
Kansas.....	33	31,400	.7	290,000	.2
Kentucky.....	165	138,000	3.0	2,960,000	2.6
Louisiana.....	50	29,000	.6	372,000	.3
Maine.....	22	10,500	.2	44,800	( <sup>2</sup> )
Maryland.....	53	80,700	1.8	1,400,000	1.2
Massachusetts.....	266	111,000	2.4	3,230,000	2.8
Michigan.....	311	248,000	5.4	10,600,000	9.2
Minnesota.....	55	45,100	1.0	873,000	.8
Mississippi.....	26	14,600	.3	147,000	.1
Missouri.....	168	63,800	1.4	1,700,000	1.5
Montana.....	15	11,300	.2	223,000	.2
Nebraska.....	19	15,500	.3	235,000	.2
Nevada.....	9	2,260	( <sup>2</sup> )	17,000	( <sup>2</sup> )
New Hampshire.....	23	5,540	.1	130,000	.1
New Jersey.....	247	193,000	4.2	6,530,000	5.6
New Mexico.....	15	5,870	.1	103,000	.1
New York.....	682	433,000	9.4	9,380,000	8.1
North Carolina.....	56	14,400	.3	452,000	.4
North Dakota.....	9	4,250	.1	61,000	.1
Ohio.....	396	450,000	9.8	10,600,000	9.2
Oklahoma.....	42	16,800	.4	329,000	.3
Oregon.....	45	21,400	.5	272,000	.2
Pennsylvania.....	639	877,000	19.1	20,100,000	17.3
Rhode Island.....	45	11,400	.2	257,000	.2
South Carolina.....	19	10,200	.2	388,000	.3
South Dakota.....	7	2,300	( <sup>2</sup> )	13,700	( <sup>2</sup> )
Tennessee.....	131	64,900	1.4	1,110,000	1.0
Texas.....	97	94,800	2.1	2,010,000	1.7
Utah.....	17	16,700	.4	782,000	.7
Vermont.....	7	2,600	.1	16,100	( <sup>2</sup> )
Virginia.....	108	72,200	1.6	1,240,000	1.1
Washington.....	79	49,600	1.1	884,000	.8
West Virginia.....	150	229,000	5.0	5,600,000	4.8
Wisconsin.....	91	73,700	1.6	4,820,000	4.2
Wyoming.....	10	10,600	.2	205,000	.2

<sup>1</sup> The sum of this column is more than 4,985, because the stoppages extending across State lines have been counted as separate stoppages in each State affected, with the proper allocation of workers involved and man-days idle.

<sup>2</sup> Less than a tenth of 1 percent



MAJOR ISSUES INVOLVED<sup>1</sup>

About half of the stoppages ending in 1946 arose over problems associated with the negotiation of initial agreements or changes in the provisions of existing collective-bargaining agreements. Wages were the most important single issue. The concern of workers over their ability to maintain, if not increase, their earnings was matched by doubts on the part of many employers as to the speed with which re-conversion would be accomplished, the extent to which wage increases might be offset by price relief, and future trends in productivity and profits. As living costs rose, especially during the latter part of 1946, real earnings declined. Wages, or wage-and-hour problems combined, became the key issue in about 45 percent of all work stoppages which ended in 1946 (table 5). These stoppages involved 75 percent of all workers and about 82 percent of the recorded idleness. If to the above "wage-and-hour" group are added stoppages in which wage matters were combined with questions of union organization, wages were of major concern in 63 percent of the stoppages, which included 84 percent of the workers involved and 95 percent of the man-days of idleness.

Wages were also a factor in some disputes in which other issues, or groups of issues, appeared to dominate. In fact, the diversity and complexity of the causes or issues involved in work stoppages present difficult problems of classification for statistical purposes. Frequently, a considerable array of proposals and counterproposals are presented in the initial negotiations. Some of the proposals are for "trading purposes"; others represent the basic changes each party seeks to attain. Even these economic factors, if accurately appraised, do not take into account the human element—the psychology of the workers, the attitude of the employer, the strategy and tactics of union leaders—which, at times, may substantially determine which particular issue, or group of issues, will emerge as the hard core of the controversy. As a guide to the analysis of these problems, the Bureau endeavors to obtain from the parties directly involved their opinion as to the major issues in dispute. From the information thus furnished, together with other data available to the Bureau, each stoppage is classified in the manner set forth in table 5.

Problems of union organization—recognition of a labor organization by an employer, strengthening of the bargaining position, demands for a closed or union shop, and related questions—were the major factor in about 1 strike out of 7. Relatively few (2.6 percent) of

<sup>1</sup> The data in this and the following sections of the article relate to stoppages ending in the calendar year 1946. Thus a number of large disputes which began in 1945 and terminated in 1946 are included. These stoppages more than offset those which began in 1946 but had not ended by the close of the year. This explains, for example, the total idleness figure of 124,000,000 man-days in table 5.



the year's stoppages arose over the closed or union shop, and they involved less than 1 percent of the total number of workers affected by all stoppages. Including those additional instances in which wages were also a key issue, questions over the union or closed shop figured prominently in about 1 of every 10 stoppages ending in 1946.

TABLE 5.—Major issues involved in work stoppages ending in 1946 <sup>1</sup>

Major issue	Stoppages		Workers involved		Man-days idle	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
All issues.....	4,990	100.0	4,940,000	100.0	124,000,000	100.0
Wages and hours.....	2,238	44.9	3,710,000	75.1	101,000,000	81.9
Wage increase.....	1,570	31.6	2,250,000	45.4	76,700,000	62.0
Wage decrease.....	25	.5	27,000	.6	225,000	.2
Wage increase, hour decrease.....	82	1.6	400,000	8.1	5,220,000	4.2
Wage decrease, hour increase.....	2	( <sup>2</sup> )	180	( <sup>2</sup> )	420	( <sup>2</sup> )
Other <sup>3</sup> .....	559	11.2	1,040,000	21.0	19,200,000	15.5
Union organization, wages, and hours.....	914	18.3	439,000	8.9	16,600,000	13.4
Recognition, wages and/or hours.....	413	8.3	53,700	1.1	1,700,000	1.4
Strengthening bargaining position wages, and/or hours.....	96	1.9	183,000	3.7	5,840,000	4.7
Closed or union shop, wages, and/or hours.....	387	7.8	199,000	4.0	8,910,000	7.2
Discrimination, wages and/or hours.....	16	.3	2,970	.1	140,000	.1
Other.....	2	( <sup>2</sup> )	480	( <sup>2</sup> )	960	( <sup>2</sup> )
Union organization.....	703	14.1	129,000	2.6	2,190,000	1.8
Recognition.....	401	8.0	42,600	.9	852,000	.7
Strengthening bargaining position.....	42	.8	26,700	.5	457,000	.4
Closed or union shop.....	128	2.6	23,700	.5	634,000	.5
Discrimination.....	83	1.7	21,400	.4	133,000	.1
Other.....	49	1.0	14,600	.3	114,000	.1
Other working conditions.....	879	17.6	425,000	8.6	2,500,000	2.0
Job security.....	418	8.4	172,000	3.4	905,000	.8
Shop conditions and policies.....	355	7.1	173,000	3.5	775,000	.6
Work load.....	90	1.8	62,300	1.3	765,000	.6
Other.....	16	.3	17,600	.4	51,300	( <sup>2</sup> )
Interunion or intraunion matters.....	246	4.9	236,000	4.8	1,140,000	.9
Sympathy.....	57	1.1	148,000	3.0	459,000	.4
Union rivalry or factionalism.....	125	2.5	43,800	.9	539,000	.4
Jurisdiction.....	50	1.0	16,900	.3	110,000	.1
Union regulations.....	8	.2	3,460	.1	7,950	( <sup>2</sup> )
Other.....	6	.1	24,700	.5	25,700	( <sup>2</sup> )
Not reported.....	10	.2	1,530	( <sup>2</sup> )	6,260	( <sup>2</sup> )

<sup>1</sup> It should be noted that this and subsequent tables are based on the stoppages ending in the year and that the totals differ from those in preceding tables, which show the number of stoppages beginning in the year.

<sup>2</sup> Less than a tenth of 1 percent.

<sup>3</sup> Includes stoppages involving adjustments of piece rates, incentive rates, wage classifications for new and changed operations, retroactive pay, holiday and vacation pay, payment for travel time, etc.

Stoppages arising over interunion or intraunion matters, which included issues involving sympathy, union rivalry or factionalism, and jurisdiction, remained comparatively low, but they, nevertheless, attracted considerable public attention. The spotlight, in particular, was focused on those disputes which were not directed against employers but were primarily conflicts between union groups, generally called "jurisdictional strikes." The Bureau classifies these disputes as rival union strikes (those between unions of different affiliation) and jurisdictional strikes (those between unions belonging to the

same affiliated body). Combined, these two issues accounted for only 3.5 percent of the stoppages ending during the year, a little more than 1 percent of the workers, and about half of 1 percent of the total amount of lost time.

Outstanding as an example of a jurisdictional struggle has been the intermittent strife in Hollywood between the Conference of Studio Unions, made up primarily of AFL craft affiliates, and the more inclusive AFL International Alliance of Theatrical Stage Employees.<sup>9</sup> Illustrative of disputes involving union rivalry was the controversy in which the Seafarers International Union (AFL) picketed piers in New York City and other Atlantic ports urging AFL workers to refuse to handle cargo of CIO ships unless the International Longshoremen's and Warehousemen's Union (CIO) abandoned its boycott against AFL-manned ships on the West Coast.

About 1 out of every 100 stoppages involved a sympathy demonstration in which other unions ceased work to support the strike of a particular group of employees or to protest action taken by a group of employers or a public agency. In April such a sympathetic strike tied up the Port of Philadelphia when both AFL and CIO unions supported the United Harbor Workers, affiliated with District 50, United Mine Workers (AFL). The following month both AFL and CIO unions of Rochester, N. Y., staged a 1-day general stoppage to protest the refusal of the city to recognize or bargain collectively with the AFL Federation of State, County, and Municipal Employees and the city's action in discharging 500 employees in the public works department seeking to form a union. The 2-day Oakland general strike in December 1946 involved 50,000 workers. It arose as a protest against a police escort given to alleged strikebreakers by the city administration through picket lines of the AFL Retail Clerks' International Protective Association.

#### DURATION

The average duration of work stoppages ending in 1946 was about 24 calendar days. This simple unweighted average of all strikes, irrespective of number of workers involved, was higher than for any time since the predepression years of 1927 and 1928. It exceeded the relatively high averages which prevailed in the late 1930's during the period of intense union organizational activity. The 1946 average was more than double that of the preceding year, and 3 to 4 times as long as during the war period.

Controversies lasting 3 months or longer constituted about 6 percent of total stoppages (table 6). The significance of this group in the general strike picture, however, was more far reaching than this per-

<sup>9</sup> International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada.

centage figure indicates. These prolonged controversies involved about a seventh of all the workers and between a third and a half of the time loss. By contrast, in 1945, only 1 strike out of every 200 continued as long as 3 months, and time lost from these stoppages comprised but a twenty-fifth of the year's total.

Of the 303 stoppages which lasted 3 months or longer, 33 involved 1,000 or more workers. Included in this group of large strikes were such prominent disputes as those involving the nonferrous metal workers, auto builders of Mack Truck Co. and Diamond Motors, employees of Pratt and Whitney and Yale and Towne, and California redwood lumber workers. A number of plants of the Allis-Chalmers Co., were affected by labor-management stoppages which continued for varying periods ranging from 5 to 11 months. In addition, a few strikes which began in 1945 continued throughout the entire year 1946. These included the controversy between 13 railroad unions and the Toledo, Peoria, and Western Railroad which began October 1, 1945, a Southern textile strike, and the UAW-J. I. Case dispute. The last stoppage was terminated March 9, 1947. Issues of wages or wages and union security were the principal points of disagreement in most of these prolonged controversies.

TABLE 6.—Duration of work stoppages ending in 1946

Duration	Stoppages		Workers involved		Man-days idle	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
All periods.....	4,990	100.0	4,940,000	100.0	124,000,000	100.0
1 day.....	304	7.9	241,000	4.9	241,000	.2
2 to 3 days.....	775	15.5	692,000	14.0	1,390,000	1.1
4 days and less than 1 week.....	749	15.0	321,000	6.5	1,160,000	.9
1 week and less than 1½ month.....	1,045	20.9	672,000	13.6	4,350,000	3.5
1½ and less than 1 month.....	818	16.4	730,000	14.8	9,560,000	7.7
1 and less than 2 months.....	642	12.9	1,450,000	29.2	46,600,000	37.6
2 and less than 3 months.....	264	5.3	168,000	3.4	8,740,000	7.1
3 months and over.....	303	6.1	671,000	13.6	51,800,000	41.9

#### METHODS OF TERMINATING WORK STOPPAGES

Despite the postwar emphasis upon a return to "free" collective bargaining, the assistance of Government agencies in terminating work stoppages was required in slightly more than half of the disputes ending in 1946 (table 7). These controversies, in the settlement of which Government conciliators and mediators participated, involved about three-fourths of all the workers. By contrast, 1 stoppage out of every 3 was settled directly by the parties affected without any outside assistance.

The United States Conciliation Service closed 3,435 work stoppage cases during 1946, a total greater than the number of work stoppages



reported settled with the assistance of Government agencies (table 7). The Bureau of Labor Statistics includes in a single stoppage all employers involved in a controversy or issue that simultaneously affects a group of employers jointly, or the industry as a whole, irrespective of the number of individual employers or the number of local unions involved, and irrespective of the number of separate contract negotiations which may have taken place before the work stoppage was settled. The Conciliation Service counts as a separate work stoppage case each such negotiation to which a conciliator is assigned to aid the parties in their efforts to reach an agreement.

Frequently, in disputes involving a number of employers, agreements are reached through a series of separate negotiations between employers and local unions which result in separate and sometimes different contracts. The 1946 industry-wide steel strike involving over 1,200 separate employers was counted by the Bureau as a single stoppage. The complete termination of this work stoppage, however, required several months of separate negotiations between employers and local unions in widely scattered areas of the country. The Conciliation Service in all of its 7 regions participated in more than 140 negotiations between employers and local unions of the United Steelworkers. The Conciliation Service therefore recorded over 140 cases in this situation. The same circumstances existed, in varying degrees, in a number of other multiplant or multiemployer stoppages that occurred in 1946 where separate labor-management negotiations took place.

The activities of the Federal Government in providing aid in conciliating labor-management disputes were supplemented in many instances by the work of similar State agencies. Various municipalities also manifested an increasing interest in developing machinery to solve their local labor-management controversies, and in this connection the Toledo (Ohio) Labor-Management Citizens-Committee plan for industrial peace received widespread attention. Other municipalities, such as New York, established new or additional machinery to facilitate the peaceful adjustment of labor disputes.

About 1 out of every 9 stoppages ended without any formal settlement. Most of these cases involved relatively small groups of workers. In a few instances (36) the employer was reported to have discontinued business allegedly because of labor difficulties.

Government seizure of plants or an industry because of a labor-management controversy occurred in 5 instances in 1946. These cases involved the large meat-packing companies, New York harbor tugboats, bituminous-coal mines, and the railroads on two separate occasions, one of which involved virtually all of the Nation's railroads and the other a single industrial carrier. This was in marked con-



trust with the two preceding years, when seizure by the Federal Government was resorted to on 24 occasions in 1945 and 19 in 1944.

TABLE 7.—*Methods of terminating work stoppages ending in 1946*

Method of termination	Stoppages		Workers involved		Man-days idle	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
All methods of termination.....	4,990	100.0	4,940,000	100.0	124,000,000	100.0
Agreement of parties reached—						
Directly.....	1,675	33.6	1,030,000	20.8	23,900,000	19.3
With assistance of impartial chairmen.....	12	.2	2,060	(1)	30,100	(1)
With assistance of Government agencies.....	2,656	53.3	3,670,000	74.3	97,900,000	79.1
Terminated without formal settlement.....	579	11.6	236,000	4.8	1,730,000	1.4
Employers discontinued business.....	36	.7	2,280	(1)	150,000	.1
Not reported.....	32	.6	4,800	.1	91,800	.1

<sup>1</sup> Less than a tenth of 1 percent.

#### STOPPAGES BY UNION AFFILIATION

Slightly more than half of all work stoppages ending in 1946 involved affiliates of the American Federation of Labor (table 8). Unions affiliated with the Congress of Industrial Organizations participated in a third of the year's stoppages. Reflecting the type of organization characteristic of CIO unions, somewhat more workers were involved in CIO than AFL stoppages, and the resultant idleness, owing principally to a relatively few large strikes, was substantially greater for the CIO than for the AFL.

In a small number of controversies (2.4 percent), two or more unions of different affiliation—AFL, CIO, or independent (unaffiliated)—were rival participants. Most of these cases centered about organizational or jurisdictional claims. In a few cases (0.6 percent), two or more different union groups participated jointly in strike action. Such cooperative relationships between AFL and CIO, or between either or both of these groups and one or more unaffiliated unions, prevailed in some of the maritime controversies and in various sympathy demonstrations.

About 1 out of every 16 stoppages ending in 1946 involved an independent labor organization, i. e., a union not affiliated with a larger federated group such as the AFL or CIO. The number of strikes occurring in this group has fluctuated considerably in recent years with the shifting status of such large unions as the United Mine Workers and the International Association of Machinists. More than half of the workers involved in the unaffiliated group of unions were affected by stoppages involving the railroad brotherhoods, principally the Nation-wide rail strike of May 1946.

Single-firm unions—organizations confined to employees of one company—participated in 18 relatively small stoppages. By con-

trast, there were 97 strikes in which no union was identified as a party to the controversy.

TABLE 8.—*Work stoppages ending in 1946, by affiliation of labor organizations involved*

Labor organizations involved	Stoppages		Workers involved		Man-days idle	
	Number	Per cent of total	Number	Per cent of total	Number	Per cent of total
All affiliations.....	4,900	100.0	4,940,000	100.0	124,000,000	100.0
American Federation of Labor.....	2,735	54.8	1,680,000	33.9	35,300,000	28.5
Congress of Industrial Organizations.....	1,663	33.3	2,070,000	41.8	73,100,000	59.1
Unaffiliated unions.....	317	6.4	649,000	13.1	4,670,000	3.8
Rival unions (different affiliations).....	119	2.4	42,700	.9	535,000	.4
Cooperating unions (different affiliations).....	29	.6	484,000	9.8	10,000,000	8.1
Single-firm unions.....	18	.4	9,190	.2	106,000	.1
No unions.....	97	1.9	13,500	.3	54,700	(1)
Affiliation not reported.....	12	.2	930	(1)	4,120	(1)

<sup>1</sup> Less than a tenth of 1 percent.

#### ESTABLISHMENTS INVOLVED

As in previous years, by far the largest number of stoppages ending in 1946 (74 percent) involved but 1 mill, factory, plant, or establishment (table 9). Almost 1 million workers were directly affected by these disputes. On the other hand, the relatively small proportion (7.2 percent) of stoppages involving 11 or more establishments was more than double that recorded for 1945 and accounted for 70 percent of all workers and 75 percent of the year's time loss. Included in the latter totals were, of course, the large multiplant and multiemployer stoppages which dominated the pattern of labor-management stoppages in 1946.

TABLE 9.—*Work stoppages ending in 1946, by number of establishments involved*

Number of establishments involved <sup>1</sup>	Stoppages		Workers involved		Man-days idle	
	Number	Percent of total	Number	Percent of total	Number	Percent of total
All establishments.....	4,900	100.0	4,940,000	100.0	124,000,000	100.0
1 establishment.....	3,698	74.0	998,000	20.2	17,700,000	14.3
2 to 5 establishments.....	756	15.2	407,000	8.2	11,000,000	8.9
6 to 10 establishments.....	178	3.6	92,000	1.9	2,410,000	1.9
11 establishments and over.....	358	7.2	3,440,000	69.7	92,700,000	74.9

<sup>1</sup> An establishment, for purposes of this table, is defined as a single physical work place—a factory, mine, construction job, etc. Some of the year's stoppages involved several establishments of a single employer; others involved establishments of different employers.

## Reemployment of Veterans Under Collective Bargaining<sup>1</sup>

A FIELD SURVEY of the administration of veterans' reinstatement rights provided by law, in 13 establishments that were operating under collective agreements, was made by the Bureau of Labor Statistics during December 1946.<sup>2</sup> In collective-bargaining experience, reinstatement was generally regarded as complete when the veteran was restored to the same civilian job or one which paid an equivalent wage, taking into account any increases in rates. Placement on the same job depended on the plant employment level and the amount of accumulated seniority the veteran could show on his old job or one similar to it. In some instances, veterans with the necessary seniority and ability were moved up to better paying jobs, even though this meant the displacement of existing jobholders with less seniority who had been upgraded in the veterans' absence. In other instances, veterans had to await job openings and then bid for the jobs along with other employees. Seniority was generally accepted as the principal factor in determining the order of reemployment of veterans; only a small number of disputes on this point were reported as having failed to be settled in the early stages of the grievance procedure.

### *Legislation and Court Interpretation*

Like all employers, the managements of the plants surveyed were subject to the Selective Training and Service Act,<sup>3</sup> which requires that a veteran who left a position other than one of a temporary nature must be reinstated provided that (1) he received an honorable discharge; (2) he is still qualified to perform the duties of the job; and (3) he applies for reemployment within 90 days after discharge (or 90 days from discharge from hospitalization which does not exceed 1 year). A veteran is considered to have been on leave during his military service. He may not be discharged within 1 year after reinstatement except for cause. The law also specifies that the

<sup>1</sup> Prepared in the Bureau's Industrial Relations Branch by Jonas Silver and Irving Atkins.

This article will be reprinted in a forthcoming bulletin, which will include greater detail on plant experience and individual case histories of reemployed veterans.

<sup>2</sup> The companies were selected primarily for their varying industrial backgrounds and recent reconversion problems. Industrial representation consisted of basic steel, electrical machinery, machinery, automobiles, canned and processed foods, men's apparel, chemicals, and street railways. The unions represented were AFL—Amalgamated Association of Street, Electric Railway and Motor Coach Employees of America, International Chemical Workers Union, United Automobile Workers of America, Amalgamated Meat Cutters and Butcher Workmen of North America, International Brotherhood of Electrical Workers; CIO—United Automobile, Aircraft and Agricultural Implement Workers of America, United Electrical, Radio and Machine Workers of America, United Steelworkers of America, Industrial Union of Marine and Shipbuilding Workers of America, Amalgamated Clothing Workers of America; and one independent union—International Association of Machinists.

<sup>3</sup> 54 Stat. 885, as amended in 1942 (55 Stat. 626) and in 1944 (58 Stat. 798). Similar provisions were enacted in 1943 covering merchant seamen (57 Stat. 162) and amended in 1945 (Public Law 660, 79th Cong. 2d sess.)



veteran must be restored to his former position "or to a position of like seniority, status, and pay unless the employer's circumstances have so changed as to make it impossible or unreasonable to do so."

"Super-seniority" may not be granted to a veteran, according to the United States Supreme Court decision in the Fishgold case.<sup>4</sup> However, this same decision states that it was the intent of Congress "to give the veteran protection within the framework of the seniority system." Because of this interpretation, plants which have collective-bargaining contracts and in which unions are the recognized representative of labor—such as the 13 surveyed by the Bureau—must implement veterans' seniority rights within the framework of the existing seniority systems.

### *Applications Under Collective Bargaining Practice*

The instances in which management, without union assent, granted returning veterans absolute preference or super-seniority over non-veterans were ruled out by the Fishgold decision. Other departures which were made by mutual agreement between management and union benefited veterans without disturbing the basic seniority rules. They were made on the merits of individual cases or as a general policy supplementing the agreements in effect.

The modifications made by mutual agreement widened the unit of application of seniority to enable the veterans to qualify for a greater number of jobs; waived on-the-job requirements for vacation pay; gave disabled veterans plant-wide seniority and, in some cases, kept them on jobs while others with greater seniority were being laid off; and extended leaves of absence with accumulated seniority for purposes of education under the GI Bill of Rights.

Union and management in some plants also credited newly hired veterans with time spent in the military services and extended accumulated seniority to veterans who had not completed their probationary periods before entering the armed forces. Young men who entered the military services without prior employment were afforded some job protection by being allowed seniority credit for the time spent in the services.

Management and union determination to give veterans every possible advantage within the framework of the collective-bargaining agreements made for satisfactory settlement of veterans' problems. Only when it was sought to circumvent the collective-bargaining process in an apparent effort to set veterans against nonveterans were unsatisfactory relations created; collective bargaining in other areas was also hampered in such instances.

<sup>4</sup> The decision was made on May 27, 1946; for a brief statement on its terms, see *Monthly Labor Review*, July 1946 (p. 98).



A number of cases have been brought to the courts which involve interpretations of the reinstatement provisions of the Selective Training and Service Act and its relation to the provisions of collective-bargaining agreements. However, most such questions have been resolved by the parties to the agreements by day-to-day adjustments, such as the Bureau observed in the different establishments studied. The existing high level of employment facilitated adjustments at the plant level. Should the volume of employment drop, the seniority system will be subject to strain. Necessarily, the recently hired persons would be the first to be laid off—whether veteran or nonveteran.

Finally, the position of the reinstated veterans must be reviewed against the background of other jobs and employees in a plant. The same applies with regard to the order of lay-offs and rehires, preference in transfers and promotions, vacations, and other benefits that are established under the applicable collective-bargaining agreement and the plant seniority system.<sup>5</sup> To settle such questions, rules of selection and apportionment are needed as well as a nondiscriminatory order governing job changes—these being the objectives of seniority arrangements. Simply stated by the United States Supreme Court in the Fishgold case, seniority operates on the principle of the continuous "seniority escalator" under which the veteran who has reemployment rights "steps back on at the precise point he would have occupied had he kept his position continuously during the war."

Specific examples of the determination of the veterans' reinstatement rights under collective-bargaining practice are shown below. The findings are presented under headings that follow the sequence of the reemployment provisions of the Selective Training and Service Act. There is also a section dealing with on-the-job training and apprenticeship.

### *Restoration to Previous or Like Position*

#### TEMPORARY POSITION

The Selective Training and Service Act does not require the reemployment of persons who held temporary positions prior to entering the armed forces. In collective-bargaining practice no jobs were designated as temporary in character, but rather each employee acquired seniority status after the completion of a probationary period. However, with seniority status there must also be an area or unit to which it can be applied in asserting a claim to a job. Thus, to have seniority status in a unit of a plant which no longer exists, owing to the abolition of war work, is to have none or very little of the benefit

<sup>5</sup> For discussion of the seniority systems in the automobile and rubber industries, see Monthly Labor Review, issues of September 1944 (p. 463) and October 1944 (p. 788); also Veterans' Rights Under Union Agreements, mimeographed report of the Bureau's Industrial Relations Branch, October 1946.

of seniority for all practical purposes. This happened in a number of plants in which veterans had been employed in wartime units which were no longer in existence upon their return.<sup>6</sup>

*New company operates former wartime plant—No carry-over of seniority.*—An automobile company operated a large bomber assembly plant during World War II but withdrew from the plant at the termination of hostilities. In the summer of 1945, the plant was turned over to a new enterprise consisting of a merger of two independent corporations, one of which had been in the automobile business for years. In November 1945, the new company began to hire workers for the production of automobiles and farm equipment. Under the seniority arrangements worked out between the new corporation, the international union, and the local union of the merged automobile company, employees of the bomber plant did not carry over their length of service or seniority credit to the new enterprise. They were merely given preference in employment over outsiders. In contrast the employees of the automobile plant, which became a part of the new enterprise, received full seniority credit in the occupational groups and divisions to which they were assigned upon transfer from the old to the new plant. An employee of the former bomber plant, veteran or otherwise, started as a new employee with the company. An employee of the automobile plant now part of the new organization, veteran or otherwise, received full seniority credit.

Owing to the rising level of employment in the newly formed corporation, a substantial number of former bomber plant workers found jobs on the assembly lines. Only 1,100 of the new company's more than 7,000 employees were formerly employed by the automobile firm which became part of the new enterprise. Some 300 of the 638 workers who left the merged automobile firm for the armed forces were reemployed at the new plant. At the time of the survey there was ample room for the remaining number if they chose to exercise their rights. This was evident because about 3,000 new veterans had been hired by the plant.

*Wartime plant eliminated—No carry-over of seniority.*—A food processing and canning factory added a war production unit for the manufacture of plywood glider parts. During wartime, the total number of employees in the plant reached a peak of 3,500, of whom 1,300 were on glider work. Employees who transferred from the food factory to this type of war work accumulated seniority on their old jobs. However, new entrants in the glider unit had no seniority

<sup>6</sup> Under the law an employer is not required to reemploy a returning veteran if his "circumstances have so changed as to make it impossible or unreasonable to do so." Aside from those cases of elimination of wartime departments and plants over which management had no control, in no instance was it found that the employer had resorted to this section of the statute to deny a veteran reemployment rights.

rights to jobs in the food factory. In effect, two plants were in operation with widely different products and widely different job requirements. When the war production department or glider unit was discontinued, workers from it who were hired by the food factory in which they had never worked were required to begin as new employees.

#### TEMPORARY EMPLOYEE

Although the Selective Training and Service Act does not expressly refer to temporary employees, the words "temporary position" and position of "like seniority, status, and pay" make the inference reasonable that only employees who had acquired seniority status prior to entrance into the armed forces are covered by the reemployment provisions of the statute. If the probationary period had not been completed prior to entrance into the armed forces, the collective-bargaining practice varied. Union and management in most plants permitted the acquisition of seniority status and gave length of service credit for all time spent in the armed forces, even though the employee had been with the company only a few days. Where this arrangement was not followed, the returning veteran had to start in again as a new hire although he usually received preference in employment.

Although the positions as such were not designated as temporary, a steel mill by agreement with the union classified physically deficient employees and women employees "not normally adapted to most of the work required in the corporation's plants" as wartime workers. They were subject to replacement by "physically qualified men, particularly ex-servicemen." In this mill, no women were employed on factory jobs before Pearl Harbor. All but 20 of the 698 women who were employed in production at the wartime peak have been replaced, largely by ex-servicemen.

#### APPLICATION FOR REEMPLOYMENT WITHIN 90 DAYS

The law provides that application for reemployment shall be made within 90 days after discharge or "from hospitalization continuing after discharge for a period of not more than 1 year." In general, the collective bargaining practice has been to adhere rather strictly to the 90-day limitation. Exceptions have been made only as to those veterans with reasonable excuses for failure to reapply within the time limit, that is, accident or illness, enforced absence from the community, etc. In some plants, provision was made for short leaves of absence, not to exceed an additional 60 days, before the veteran returned to work but after he reapplied for the job.



Mr. A had 12 years' seniority with the company before he was inducted. He served  $2\frac{1}{2}$  years in the armed forces (including the Guadalcanal campaign) before discharge. Mr. A failed to ask for reinstatement within the 90-day period. In view of the man's medical history (suffering from malaria, although he had not been hospitalized following discharge), it was agreed to overlook this requirement. He was reinstated to his former position with full seniority.

#### SAME POSITION OR POSITION OF LIKE SENIORITY, STATUS, AND PAY

The Selective Training and Service Act provides that a returning veteran still qualified to perform the duties of the position shall be restored "to such position or to a position of like seniority, status, and pay." The United States Supreme Court has stated that this means that a veteran is credited with his service in the armed forces as service in the plant "so that he does not lose ground by reason of his absence." Union and management have made every effort to restore the veteran to the identical position held by him prior to entrance into military service, and to grant accumulated seniority at a rate of pay equivalent to that which the veteran received on the old job; also, all general or special wage increases were added which had been applied to the job in the veteran's absence. If the plant wage structure contained rate ranges within job classifications based on automatic progressions, the veteran was restored to the rate for the job which corresponded to the automatic increases he would have received had he remained. In cases of merit increases within the ranges of job classifications, the returning employee might have to wait for as long as 6 months to be rated for an increase in pay. In a number of cases, however, veterans were rated soon after having returned to work.

If the job the veteran left was no longer in existence upon his return or if he did not have sufficient seniority to be placed on his old job at the existing plant employment level, union and management endeavored to place the veteran on a job for which he could qualify by his experience. The rate of pay was nearest that called for by his old job and in line with accumulated seniority. At the first opening in his old job classification or in a job of equivalent rate of pay to which his seniority entitled him, the veteran was completely restored to his rightful place on the "seniority escalator." With the exception of those few plants in which management granted veterans absolute preference or super-seniority, the general rule followed in reinstating veterans was that of straight seniority by plant or department or occupational group, or a combination of these factors, as the agreement provided. However, in a number of instances, special arrangements were made to take care of returning veterans by broadening the seniority unit. Otherwise, a rigid application would have resulted in exclusion from employment.

*Restored to same position.*—A metropolitan transit company had no problem in reinstating returning employees. Employment was higher than at any time during the company's history (4,800 as compared with war peak of 3,600). Of the 1,100 employees who entered the armed forces, about 800 had been reemployed. However, the company had a serious turn-over problem, particularly in the transportation department. New and old employee veterans were leaving the company because of the housing shortage, opportunities for better paying jobs elsewhere, and an unwillingness to work at night. Veterans who were bus and car operators before going into the service were restored to the same positions at the existing top rate of \$1.20 an hour. Their accumulated seniority was exercised in selecting a division from which to operate (preferably a car barn nearest home) and a work schedule or run (preferably an early "straight").

Mr. B was employed as a bus operator at \$1.12 an hour on a regular run before he entered into the armed forces in December 1940, having 2 years' and 2 months' seniority to his credit. He was discharged in May 1946 and reapplied for his job in July. Mr. B was reemployed in his old division as a bus operator at \$1.20 an hour and had the privilege of selecting any other division in line with his accumulated seniority of 5 years and 6 months. Although Mr. B preferred day work, his seniority at the time of reemployment was not sufficient and Mr. B had to take a "late straight run." He has since moved up to a "split run" which calls for work in the morning and evening rush hours.

*Restored to same or like position.*—In December 1946, a company manufacturing precision and scientific instruments employed 7,288 persons as compared with the wartime peak of 32,397 (of whom about 46 percent were women). In all, 2,700 of the 9,552 employees who went into military service applied for reinstatement; of this number, only about 70 percent had sufficient qualifying seniority at the sharply reduced employment level. Seniority became so important in determining the order of job rights that it was measured down to the last hour and minute. A "Joint Central Seniority Committee" of union and management representatives carefully determined the seniority rights of each individual affected by a lay-off or other job displacement.

Seniority in the instrument manufacturing company was based on length of service within the occupational group and the area of seniority application varied with length of service with the company. Thus, an employee having less than 24 months' service exercised his seniority within the plant by occupation, an employee with more than 24 months' service had company-wide seniority (from plant to plant) by occupation. The unit of seniority application was widened further for employees with more than 5 years' service. They were permitted to compete for jobs other than in their usual occupations, as decided upon by the Joint Central Seniority Committee. Confronted with the problem of reemploying veterans under conditions of sharply reduced

employment, union and management agreed (in June 1946) to permit veterans having less than 5 years' seniority, who had been hired prior to January 1, 1942, to exercise their accumulated length of service (on a company-wide basis) in occupations for which they could qualify by previous experience.

Mr. C began with the company as a learner on milling and profile machines in June 1941. By October 1942 he had progressed to milling machine operator, first-class (specialist), at 95 cents an hour. He received a 5-cent increase 1 year later and entered military service January 1944. He was discharged May 1945 and applied for reinstatement. Although he did not have sufficient seniority to reclaim his old job of milling machine operator, as a veteran he was considered a 5-year employee eligible for any job for which he had sufficient seniority and ability. Mr. C was reemployed as a storekeeper B at \$1.16 an hour, the rate he would have received had he been restored to his old position. Within 30 days after his reinstatement he was jointly reclassified by the company and union to a \$1.26 job as storekeeper A, retroactive to the date of rehire.

#### SUPER-SENIORITY

The Director of Selective Service issued an administrative interpretation of the Selective Service and Training Act under which an employer was required to reinstate a veteran "to his former position or one of like seniority, status, and pay even though such reinstatement necessitates the discharge of the nonveteran with a greater seniority."<sup>7</sup> Reinstatement rights under the terms of the administrative ruling extended for 1 year from the date of job restoration. Unions opposed the super-seniority ruling on the grounds that it nullified the seniority provisions of the collective-bargaining agreement under which rehiring would be carried out normally, according to greater length of service.

The management of an automobile concern considered the interpretations of the Selective Service Administration as binding upon the company. Heavy lay-offs resulted when war orders ended and the company's automobile-body production was transferred to another firm. From a wartime peak of 39,000, the plant employment dropped to about 9,700 in December 1946. In the latter part of 1945, it was not unusual for veterans with relatively little service with the company to "bump" men with as much as 20 years' seniority.

The local union proposed that veterans on the pay roll as of December 1, 1944, who had not worked in the plant before going into the service, should be credited with all military time as working time. However, no change in company policy developed until April 1946; rehiring then began to be carried out on a straight seniority basis, following a Circuit Court decision outlawing super-seniority. After the Fishgold decision in May 1946 in which the United States Supreme Court held that veterans were subject to the regular application of

<sup>7</sup> Local Board Memorandum, No. 100-A, National Headquarters, Selective Service System, May 20, 1944.



seniority rules along with nonveterans, veterans who had been placed on jobs of higher classification than their regular seniority would permit were demoted to positions they would normally have filled.

At a shipyard, no settlement was reached on super-seniority prior to the Fishgold decision and the back-pay claims of the workers were submitted for arbitration. In October 1946, the arbitrator ruled in favor of the union and awarded back pay to date in cases of lay-off not in order of seniority. The arbitrator stated:

This decision does not impute bad faith to the company. I recognize that the company was placed in a dilemma by the administrative authorities. However, that dilemma was not created by the union or its members and the workers should not be made to suffer wage loss because of the choice made by the company.

### *Disabled Veteran*

Under the Selective Training and Service Act a veteran must be "qualified to perform the duties of such positions [former position or position of like seniority, status, and pay]." If physical ability to perform the duties of a position has been impaired by service-incurred disability, union and management have agreed to modify and in some cases to waive seniority rules completely in order to place the disabled veteran on a job which he is able to perform. In most plants, the approach was on a case-by-case basis; in others, wartime surveys were made of all jobs to determine which ones could be filled by disabled persons. Union officials frequently made it a point to refer such cases to a vote of the membership so that advance approval might be obtained regarding proposed changes in seniority order.

Mr. D was hired as a laborer in the open hearth department of the steel mill in 1941. He served in the Army from October 1942 to November 1946 and suffered a wound which resulted in the amputation of his leg above the knee. Before his return, the company and union agreed that this man would be placed on the Selsas furnace as a helper with accumulated seniority in his department. Until Mr. D came back to the plant, the man with the least department seniority was placed on the job as helper on a temporary basis and was demoted to his former position when Mr. D reported for work. The assignment was selected so that the disabled veteran would be able to work in a sitting position a good deal of the time. However, this man has insisted on standing at his post.

\* \* \* \* \*

A veteran whose left foot was shot off in combat was reemployed in the plant making electrical materials. Before Mr. E was inducted into the Army, he had been working as a lathe-press helper at 75 cents an hour. On his return he went to work as a special repairman on spot test operations at \$1.04 an hour. This job permits him to sit most of the time.

### *Promotion*

The Selective Training and Service Act does not specifically require that a veteran must be promoted upon reemployment. Practically,

of course, the opportunities for promotion upon return varied, depending upon the level of employment in the individual plant. Ability to perform the job is an important factor in promotions—particularly for skilled jobs in which accumulated seniority, though it may be sufficient to permit the worker to bid for the job, is frequently not the determining factor. Following restoration of the returning employee to his previous or similar job, the usual practice has been for the veteran to bid for or claim an opening with other employees, in keeping with the manner prescribed in the collective-bargaining agreement. In two of the plants visited, the reemployed veteran was permitted to displace a worker with less seniority who had advanced to a higher rated position in the veteran's absence. Such a veteran was required to show by his previous experience or by a trial, that he could perform the new task. It should be noted that in a reduction in force the individual with the greatest seniority in the area of competition (plant, department, occupational group, etc.) will be laid off last. This applies even though he may be on a lower rated job than another worker who has passed him on the line of promotion, provided a job exists which he can perform.

The steel mill included in the survey provided an illustration of the promotion of a veteran who was in military service when a job became available for which he was qualified. Union and management in this plant did not have an over-all policy in such matters but considered each case on its merits.

Mr. F began working for the company in 1936 as a molder's helper. He was continuously employed except for a lay-off from October 1937 to October 1939. In December 1942 he entered the armed forces. Following discharge in October 1945, Mr. F was reemployed as a repairman's helper in the open hearth department, a position he had held prior to entering the armed forces. When the head repairman was on vacation, Mr. F had substituted for him. While Mr. F was in the armed forces, the job of head repairman became vacant and was bid in by another employee outside the department who had less seniority than Mr. F. At Mr. F's request the union-management veterans' committee agreed to reopen the job of head repairman to bids by all ex-servicemen who had missed the opportunity to apply for the job. Mr. F was adjudged the successful candidate in point of seniority and previous experience and received the position of head repairman, which carried the rate of \$1.32 an hour as compared with the rate of \$1.14 an hour for the job of repairman's helper.

Union and management in the instrument manufacturing plant that was surveyed had worked out a policy of promotions for veterans whereby due consideration was given to the skills of the ex-servicemen which "may have been acquired while on military leave so that such employees may be placed in higher occupations or classifications than those in which they were employed at the time of commencement of their military leave." A returning veteran was placed on the job he left or one closest to it in rate of pay for which he was qualified by

ability and accumulated seniority. During a period of 30 days, his work was judged by the foreman and shop steward to determine which of the available jobs he was best qualified to fill. Ability to perform the job was an important factor in the promotion rules applicable in this plant. After the foreman and shop steward made their decision, the veteran was transferred to the higher rated job, provided he had adequate seniority even though this transfer resulted in "bumping" the existing jobholder. The veteran was then paid the difference in wage rates retroactive to the date of reemployment.

Mr. G was first hired in December 1930 as an errand boy at 40 cents an hour. By October 1943 he had worked himself up to a job as a first-class assembler paying \$1.05 an hour. He left for the Army in January 1944 and received his discharge in January 1946. He was put back to work as a mechanical assembler C which paid the same rate as the job he had left at the current rate of \$1.15 an hour. His work on this job was evaluated for 30 days by the foreman and union steward to determine the highest job for which he was qualified. In March 1946 he was re-rated to assembler B, at \$1.37 an hour with retroactivity to February of the 22-cents difference in hourly rates of pay. In the course of upgrading, Mr. G displaced a worker with less seniority. Mr. G has since been further advanced to a repairman-on-retained-instruments B, at \$1.47 an hour.

### *Leave of Absence*

The question of a leave of absence with continued accrual of seniority arises in connection with the educational provisions of the GI Bill of Rights. A veteran may apply for extended leave immediately after reinstatement or at a later date. The collective-bargaining agreements generally provide for leaves of absence for periods up to 1 year in "reasonable" or "proper" cases. In most of the plants included in the survey, the question of the reasonableness of a veteran's leave for educational purposes had not been raised.

Of the two companies surveyed which had developed a statement of policy concurred in by the unions, one firm permitted a year's leave to study "in line with our business and if it is his intention to return when this study is completed." The other establishment granted leaves for education up to 6 months, subject to renewal up to 1 year at the discretion of the company, provided the veteran had at least 1 year's service with the company. The course of education was not limited to study which would necessarily prepare the veteran for the work done in the plant.

### *No Discharge Without Cause*

Under the Selective Training and Service Act, a veteran restored to his position in the plant may not be "discharged from such position without cause within 1 year after such restoration." In practice, this provision of the statute is regarded as being equivalent to the usual



union-agreement clause which forbids discharge without just cause for the period of the contract. It in no way differs from the protection given other plant employees—all are subject to lay-offs, transfers, demotions, and permanent reduction in force in accordance with the terms of the agreement.<sup>8</sup>

### *New Employee Veteran*

The law makes no provision respecting returning veterans who are hired for the first time subsequent to their discharge from military service. It is the customary practice in industry and within the terms of most collective-bargaining agreements to treat such newly hired veterans in the same manner as other new employees.<sup>9</sup> Such individuals must first serve probationary periods. Upon successful completion of a probationary period, such employees obtain seniority status which is retroactive to the date when employment started.

In the textile-machinery plant the collective-bargaining agreement specifically provides:

Any veteran of the Second World War, including the U. S. Maritime Service, who does not have reemployment rights with any other company or person, shall, upon completion of his probationary period with the company, receive seniority credit for the period of such service subsequent to May 1, 1940, provided:

(a) Such veteran shall apply for and obtain such employment within 90 days after his honorable discharge from service.

(b) Such veteran shall not have previously exercised this right with any other company or person.

In collective-bargaining practice, emphasis is placed upon absence of reemployment rights with any other company. Of the 726 veterans on the pay roll of the textile-machinery plant in December 1946, newly hired veterans totaled 468—a considerable number of whom received seniority credit for time spent in military service.

Mr. H, shortly after his graduation from high school in June 1940 at the age of 18, attempted to volunteer for active duty in the Navy. While waiting for the necessary papers to clear, he went to work for a local firm for 3 months prior to being called to duty. Mr. H, received his honorable discharge from the Navy in May 1946 and applied for a job with the textile machinery company. He was hired as a new employee and successfully completed his probationary period of employment. In the course of his normal activity he became aware of the seniority credit given newly hired veterans who could properly qualify. He obtained a letter from his previous employer indicating that his employment in 1940 had been only of a temporary nature, pending his entry into military service. Upon submitting this statement to the company and union officials, his case was unanimously approved for seniority credit retroactive to 1940.

<sup>8</sup> As a matter of law the prohibition of the Selective Training and Service Act against discharge does not apply to demotions and lay-offs. See Fishgold case, 66 Sup. Ct. 1104.

<sup>9</sup> In most plants the unions did not require the newly hired veteran to pay an initiation fee where union membership was a condition of employment.

### *Vacation*

The Selective Service Act provides that upon reinstatement to his job the returning employee "shall be entitled to participate in insurance and other benefits offered by the employer pursuant to established rules and practices relating to employees on furlough or leave of absence in effect with the employer at the time such person was ordered into such service." Vacation clauses in union agreements usually require a period of continuous service, generally defined as a specific number of hours worked in the particular plant during the calendar year or other designated period. In some agreements, continuous service is defined as a percentage of pay-roll periods during the qualifying year; in others, vacations are based on a percentage of total earnings during the previous year. It is clear that in all such cases returning veterans could not qualify for vacation because they were not on the job for a specified length of time during the year preceding their reemployment. However, in most of the plants included in the survey, union and management had agreed to set aside the on-the-job vacation eligibility rules, either in whole or in part, so that the veteran upon reemployment might qualify for all or part of the usual vacation pay.

#### EXAMPLES OF VACATION PAY AS IF CONTINUOUSLY ON THE JOB

Under the terms of the steel-mill agreement any veteran who is "reinstated \* \* \* shall be entitled to vacation with pay or in lieu thereof vacation allowance in and for the calendar year in which he is reinstated without regard to the requirement of being consistently employed." Vacations of 1 week are given to 1-year employees and 2 weeks to 5-year employees. As the agreement specifies that a week's pay shall cover not less than 40 hours "or the scheduled work-week of the plant, whichever is larger," the reinstated veteran obtained a substantial benefit.

The vacation provisions of the agreement covering production and maintenance employees of the radio manufacturing company require that "an employee must have worked in 60 percent of the pay periods during the year previous to June 1" in order to receive 40 hours' pay for 1 year, 60 hours' pay for 3 years, and 80 hours' pay for 5 years of continuous service. Again, this eligibility requirement was waived for reemployed veterans. They received 40-, 60-, or 80-hours' pay depending upon their total time credited with the employer. The full period of military service was allowed for, without regard to the requirement that an employee must have worked 60 percent of the pay periods in the previous year (June 1 to May 30).

### *On-the-Job Training and Apprenticeship*

Although some consideration had been given to on-the-job training for veterans in most of the plants covered by the survey, few actually had a training program in effect. Failure of additional plants to undertake on-the-job training was explained by the existence of an adequate labor supply for the relatively small number of skilled jobs existing in the usual manufacturing establishment. Under the GI Bill of Rights <sup>10</sup> there must be a reasonable degree of certainty that skilled jobs will be available at the end of the training period; the occupation must require training of a kind that cannot be acquired in the ordinary course of performing a lower rated job; and such training is limited to a minimum of 3 months and a maximum of 2 years. The on-the-job training program is distinguished from regular apprenticeship in that the latter requires a 4-year period (in some cases 6 years) supplemented by instructions in school and is intended to qualify the apprentice for a journeyman's card. In some instances, preexisting apprenticeship rules were restated to insure compliance with approvable standards for the purpose of Federal reimbursement of subsistence and education allowances under the GI Bill.

In plants having on-the-job training or apprenticeship or both, union and management reported no difficulty in reaching agreement on the wage rates and other conditions of employment. Under the law, the Government contributes up to \$90 and \$65 a month to veteran trainees with or without dependents, respectively. However, the combined subsistence allowance and earnings on the job may not exceed \$200 or \$175 a month, respectively. As some on-the-job trainees earn monthly amounts approaching the maximum allowed, the Government adds little to their pay.

#### APPRENTICESHIP AND ON-THE-JOB TRAINING IN TEXTILE MACHINERY PLANT

With a heavy backlog of orders, the textile machinery company needed large numbers of semiskilled and skilled employees. There were about 2,300 workers on the pay roll, when the Bureau made its study, as compared with the wartime peak of 2,700. The company and union had given a great deal of attention to the readjustment of veterans, and special efforts were made to accommodate the veteran who desired to prepare himself for an advanced job (by on-the-job training) or to learn a craft (through apprenticeship).

An applicant for apprenticeship as a molder, patternmaker, or toolmaker was required to be between 18 and 25 years of age, unless he

<sup>10</sup> Act of June 22, 1944, as amended 1945 and 1946, Supp. IV to U. S. Code, 1940, Title 38, Secs. 696-696m and 701 (f).



was a veteran of World War II; a graduate of an accredited high school; and physically qualified. Preference was given to honorably discharged veterans of World War II. A ratio of no more than 2 apprentices for every 5 journeymen in the trade was maintained. In December 1946, the 28 participants in apprenticeship training were veterans.

In a number of other occupations which require varying degrees of skill—but considerably less than that set forth for the apprenticeship trades—on-the-job training programs had been instituted. Some jobs such as export shipper, stock and production scheduling, require only 6 months' training. Others such as pipefitter, electrician, require from 12- to 18-months' training. To qualify for production and time study engineer requires 3 years' training.

The 19 veteran trainees who participated in the on-the-job training program received 75 cents an hour to start and triweekly increases of 0.059 percent of the occupational rate for the particular job. The trainees very quickly reached an earning point equal to or greater than the \$175-\$200 monthly ceiling set by the GI Bill of Rights. Seven disabled trainees qualified under Public Law 16 which does not limit total earnings. Disabled veterans received training for maintenance pipefitter, maintenance electrician, welder, export shipper, purchasing agent, and production and time study engineer.

## Wage and Hour Statistics

### Wage Structure of the Rayon and Silk Industry, June-July 1946<sup>1</sup>

The rayon and silk goods industry, although greatly surpassed in employment by the cotton textile and woolen and worsted industries, ranks between the two in terms of wage levels. In June and July of 1946, plant workers in rayon and silk yarn and cloth mills combined averaged 79 cents an hour, excluding premium pay for overtime and extra-shift work. Thirteen percent of the workers received less than 65 cents an hour, while about the same proportion earned \$1.00 or more.<sup>2</sup>

#### *Characteristics of the Industry and Labor Force*

Rayon and silk goods manufacturing, once considered essentially a northeastern industry, has, in its steady expansion, become increasingly important in the Southeast where, in June and July 1946, 42 percent of the total industry's workers were employed. Three types of mills manufacture rayon and silk goods—spinning or throwing mills, weaving mills, and integrated spinning and weaving mills. Weaving and integrated mills, combined in this report, employed almost 4 out of every 5 plant workers in the industry at the time of the study. Most of the specialized yarn and weaving mills are in the North, while integrated plants predominate in the South. The latter are typically larger in size than nonintegrated mills, thus accounting for the difference in the average size of plant between the two broad regions. In the Southeast 61 percent of the mills studied employed over 250 workers, as against 33 and 12 percent, respectively, in the New England and Middle Atlantic regions. Over a third of all southern plants had more than 500 employees. The larger average plant employment in the South is further explained by the

<sup>1</sup> This report was prepared by Mary S. Caffee of the Bureau's Wage Analysis Branch. Field work was done under the direction of the Regional Wage Analysts. Detailed information on wages and related practices will be presented in two forthcoming mimeographed reports: Wage structure—Rayon and Silk Textiles, June-July 1946; and Occupational Wage Relationships—Rayon and Silk Textiles, June-July, 1946.

<sup>2</sup> Based on a study of 237 plants and about 58,000 employees or 70 percent of the industry's total work force in establishments with a minimum of 20 workers. The scope of the present study corresponds to that of industry groups 2221 and 2223 as defined in the 1941 edition of the Standard Industrial Classification Manual issued by the Bureau of the Budget.

greater extent of multishift operations. Although plants in all three regions covered—New England, Middle Atlantic, and Southeast—operated more than one shift, extra shifts engaged proportionately more of the workers in the South; at the time of the survey, over half of the southern workers were on other than first-shift work.

An over-all picture of the industry's work force shows almost equal proportions of men and women. However, women predominated in yarn mills, and men in cloth mills. Skilled and semiskilled workers comprise the bulk of the industry's work force, with more men than women engaged in skilled operations. A greater proportion of skilled workers are employed in cloth than in yarn mills.

Rayon and silk fabrics, while woven in a variety of constructions, are broadly classified on the basis of the type of loom used, such as Jacquard, plain automatic, box, etc. In general, Jacquard weaving requires the most skill and commands the highest pay. Since this type of weaving is concentrated almost entirely in northern plants, this factor contributes to regional differences in wage structure.

### *Average Hourly Earnings.*

Although hourly earnings for all plant workers ranged from less than 40 cents to \$2.10, about half the workers averaged between 65 and 80 cents an hour. Of those receiving \$1.00 or more, men outnumbered women more than 4 to 1. In yarn mills, the over-all hourly average was 71 cents; 45 percent of the workers received between 65 and 75 cents an hour. Women, comprising two-thirds of the labor force, averaged 3 cents an hour less than men. In cloth mills earnings were substantially higher, averaging 82 cents for all plant workers combined. The difference between men's and women's earnings was considerably greater, however, amounting to 11 cents in favor of the men.

Earnings presented in this article exclude premium pay for overtime and night work; the latter, quite significant in this industry, was paid to extra-shift workers in 28 percent of the 210 mills operating second shifts and in 90 percent of the 124 mills with third or other shifts. Multishift pay differentials, based on additions to first-shift hourly rates, in most cases were an additional 5 to 10 percent or between 1 and 10 cents more an hour.

Earnings variations arising from product differences in each branch of the industry were frequently striking. For example, mills making yarn primarily from rayon mixtures were highest in the wage scale of yarn producers; only 4 percent of the work force earned less than 65 cents, the over-all average being 78 cents (table 1). Among pure rayon yarn mills, however—which employed over 3 times as many workers—30 percent earned less than 65 cents, and the over-all



average was 68 cents. Workers in cloth mills, making primarily dress goods, lingerie material, and other fabrics<sup>3</sup> averaged 80, 81, and 90 cents an hour, respectively, and there was a less marked concentration of workers at the 65 to 67½ cent interval than was prevalent in yarn mills. Only about 1 in 10 workers received less than 65 cents an hour.

TABLE 1.—Percentage distribution of all rayon and silk plant workers by straight-time average hourly earnings,<sup>1</sup> type of mill, and region, June-July 1946

YARN MILLS

Average hourly earnings <sup>1</sup> (in cents)	United States				New England			Middle Atlantic				Southeast	
	Ray-on	Ray-on mix-tures <sup>2</sup>	Ny-lon and ny-lon mix-tures	Other (in-clud-ing silk)	Ray-on	Ray-on mix-tures	Ny-lon and ny-lon mix-tures	Ray-on	Ray-on mix-tures	Ny-lon and ny-lon mix-tures	Other (in-clud-ing silk)	Ray-on	Ny-lon and ny-lon mix-tures
Under 45.0	0.6	—	0.5	—	—	—	1.6	0.9	—	—	—	0.2	1.7
45.0-47.4	.7	—	.9	0.3	—	—	—	.3	—	—	—	1.3	.3
47.5-49.9	.1	—	.9	—	—	—	—	.2	—	—	—	.1	3.3
50.0-52.4	4.0	0.8	2.8	3.7	—	—	8.7	6.4	0.2	1.6	3.7	.6	4.9
52.5-54.9	.2	—	1.2	—	—	—	1.1	.2	—	1.6	—	.1	—
55.0-57.4	7.4	.8	.8	9.2	1.3	0.1	1.1	11.7	2.2	1.0	9.2	1.2	.4
57.5-59.9	1.1	—	1.1	1.9	—	—	1.1	1.5	—	1.3	1.9	.6	.3
60.0-62.4	14.0	.8	7.2	37.8	1.8	.1	.5	17.4	—	6.6	37.8	10.2	9.8
62.5-64.9	1.9	1.6	.9	6.5	—	2.0	2.2	2.8	1.2	1.1	6.5	.5	—
65.0-67.4	29.2	20.6	25.6	7.1	39.5	18.6	1.6	21.7	21.0	33.0	7.1	40.6	10.5
67.5-69.9	5.1	4.8	6.2	.5	.9	3.8	40.8	3.3	6.8	5.4	.5	8.5	3.4
70.0-72.4	9.4	11.6	8.6	3.0	17.9	12.5	13.6	7.0	10.6	5.2	3.0	12.4	16.8
72.5-74.9	3.1	7.2	5.9	.8	3.5	6.8	—	2.8	8.6	6.1	.8	3.4	6.4
75.0-77.4	5.6	7.9	7.5	3.7	9.2	9.4	6.0	5.8	5.8	8.1	3.7	4.6	6.1
77.5-79.9	5.0	6.0	5.0	1.4	5.5	5.8	.5	6.2	7.2	5.0	1.4	3.1	5.8
80.0-84.9	4.6	9.5	11.9	8.8	5.7	9.4	6.5	3.3	10.4	10.4	8.8	6.6	16.5
85.0-89.9	2.7	8.5	6.6	4.3	5.3	9.4	2.7	2.6	7.4	6.4	4.3	2.6	7.6
90.0-94.9	2.5	7.9	3.9	1.8	4.4	7.0	3.3	2.4	10.4	4.3	1.8	2.3	3.1
95.0-99.9	.8	4.2	.8	1.1	2.4	4.6	—	.7	4.0	.7	1.1	.8	1.2
100.0-104.9	.5	2.9	.8	4.6	2.2	4.1	3.3	.5	1.0	.6	4.6	.3	1.0
105.0-109.9	.3	2.2	.2	.8	—	2.8	1.1	.5	1.4	.1	.8	( <sup>3</sup> )	.1
110.0-114.9	.3	1.5	.3	.1	.2	1.9	1.6	.4	1.0	.2	.1	( <sup>3</sup> )	.3
115.0-119.9	.3	.3	.2	.3	—	.4	—	.4	.1	.1	.3	—	.4
120.0-124.9	.2	.4	.1	.3	—	.5	1.1	.3	.3	—	.3	—	.1
125.0-129.9	( <sup>4</sup> )	.3	—	.4	—	.4	—	( <sup>4</sup> )	.2	—	.4	—	—
130.0-134.9	( <sup>4</sup> )	.1	—	.4	.2	.2	—	.1	—	—	.4	—	—
135.0 and over	.4	.1	.1	1.2	—	.2	1.6	.6	.2	.1	1.2	—	—
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of workers	9,200	3,000	4,900	700	500	1,800	200	5,400	1,000	3,400	700	3,300	1,300
Over-all average hourly earnings <sup>1</sup>	\$0.68	\$0.78	\$0.72	\$0.70	\$0.73	\$0.80	\$0.73	\$0.68	\$0.77	\$0.71	\$0.70	\$0.69	\$0.72

See footnotes at end of table.

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62.5-64.9  
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70.0-72.4  
72.5-74.9  
75.0-77.4  
77.5-79.9  
80.0-84.9  
85.0-89.9  
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TABLE 1.—Percentage distribution of all rayon and silk plant workers by straight-time average hourly earnings,<sup>1</sup> type of mill, and region, June-July 1946—Continued

## CLOTH MILLS

Average hourly earnings <sup>1</sup> (in cents)	United States			New England			Middle Atlantic			Southeast	
	Dress goods (including linings)	Lingerie materials	Other <sup>2</sup>	Dress goods (including linings)	Lingerie materials	Other <sup>2</sup>	Dress goods (including linings)	Lingerie materials	Other <sup>2</sup>	Dress goods (including linings)	Lingerie materials
Under 45.0	0.1		0.3				0.4		0.5	0.1	
45.0-47.4	.6		.5				.5		.8	.9	
47.5-49.9	.1	0.1	.2				( <sup>3</sup> )		.3	.1	0.2
50.0-52.4	.5	1.2	1.5				1.4	2.0	2.5	.5	2.3
52.5-54.9	.3	.1	.5	( <sup>3</sup> )			.6	.2	.8	.3	.1
55.0-57.4	1.8	.4	1.4			0.7	6.3	.7	1.9	1.0	.8
57.5-59.9	.8	2.5	.4	( <sup>3</sup> )			2.0	9.3	.6	.7	.5
60.0-62.4	3.2	2.5	3.4	0.3	0.3	( <sup>3</sup> )	7.7	5.4	5.3	2.9	3.4
62.5-64.9	3.4	.4	.8	.1	.1		4.9	.7	1.2	4.3	.7
65.0-67.4	16.1	19.2	7.1	20.7	18.9	10.4	8.7	10.7	4.0	16.6	27.9
67.5-69.9	9.0	6.6	1.5	11.5	7.0	2.1	3.5	.4	.7	9.9	11.8
70.0-72.4	9.3	10.1	8.0	7.5	13.3	7.7	7.3	4.7	8.3	10.9	9.9
72.5-74.9	5.2	5.7	2.0	4.4	6.2	3.7	3.4	7.9	.9	6.1	2.8
75.0-77.4	4.4	5.1	5.4	4.1	5.2	5.2	5.5	6.0	5.5	4.2	4.1
77.5-79.9	3.4	2.1	3.3	3.5	2.1	3.4	2.5	2.4	3.4	3.7	2.0
80.0-84.9	7.0	7.3	9.9	7.1	7.5	9.8	6.3	6.8	10.2	7.2	7.6
85.0-89.9	6.3	8.0	8.4	6.6	8.0	10.9	5.7	5.6	6.4	6.4	10.5
90.0-94.9	7.7	6.5	7.9	7.4	6.7	9.5	6.4	7.4	7.0	8.2	5.5
95.0-99.9	5.8	6.4	7.4	6.8	9.1	10.2	4.5	6.0	6.0	5.7	2.2
100.0-104.9	3.4	2.7	4.3	4.3	3.3	6.0	5.2	4.0	3.6	2.5	.5
105.0-109.9	3.2	2.1	4.5	3.4	1.4	6.0	5.5	3.1	4.1	2.4	2.2
110.0-114.9	3.8	5.9	5.1	6.6	5.7	5.7	3.3	7.9	4.9	2.8	4.1
115.0-119.9	1.9	2.0	3.9	2.4	2.3	4.8	2.3	2.7	3.6	1.6	.7
120.0-124.9	.8	1.9	2.4	1.3	1.9	1.9	1.5	3.8	2.9	.3	.1
125.0-129.9	.5	.5	3.8	.8	.3	.7	.7	1.3	5.7	.2	
130.0-134.9	.5	.3	1.5	.6	.7	.3	1.3		2.2	.2	
135.0-139.9	.3	.1	1.8	.2	( <sup>3</sup> )	.3	.8	.2	2.7	.2	
140.0-149.9	.3	.1	1.2	.1	( <sup>3</sup> )	( <sup>3</sup> )	.9	.3	1.9	.1	
150.0-159.9	.1	.1	.8	.2		.2	.3	.2	1.1	( <sup>3</sup> )	.1
160.0-169.9	.1	( <sup>3</sup> )	.2	( <sup>3</sup> )		( <sup>3</sup> )	.2	.1	.3	( <sup>3</sup> )	
170.0 and over	.1	.1	.6	.1		.5	.4	.2	.7	( <sup>3</sup> )	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of workers	46,600	6,500	8,500	11,300	3,000	2,800	8,800	1,700	5,300	26,500	1,800
Over-all average hourly earnings <sup>1</sup>	\$0.80	\$0.81	\$0.90	\$0.84	\$0.83	\$0.89	\$0.82	\$0.83	\$0.91	\$0.78	\$0.76

<sup>1</sup> Excludes premium pay for overtime and night work.<sup>2</sup> Includes data for the Southeast region in addition to those shown separately.<sup>3</sup> Less than 0.05 of 1 percent.<sup>4</sup> Includes upholstery, drapery, tapestry materials, tie cloth, etc.

## OCCUPATIONAL VARIATIONS IN EARNINGS

Three occupations of varying skill levels—loom fixers, weavers, and hand truckers—engaged almost a third of the male plant work force. Jacquard loom fixers at \$1.26 and hand truckers (bobbin boys) at 66 cents an hour represented, respectively, the highest and next to the lowest average rates for men in the key occupations (table 2). Average hourly earnings of weavers, the most important of the three occupational groups from the standpoint of employment, ranged from \$1.17 for Jacquard to 94 cents for dobby loom, with considerable variation in individual earnings.

TABLE 2.—Average hourly wage rates (straight-time hourly earnings)<sup>1</sup> for selected occupations in rayon and silk mills, by region, June-July 1946

Occupation and sex	United States		New England		Middle Atlantic		Southeast	
	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates	Number of workers	Average hourly rates
All plant occupations.....	79,400	\$0.79	19,500	\$0.84	26,500	\$0.79	33,400	\$0.77
<i>Men</i>								
Men—All plant occupations.....	39,600	.85	10,300	.89	11,200	.88	18,100	.80
Carpenters, maintenance.....	171	.95	66	1.01	40	.95	65	.80
Dyeing-machine tenders, cloth, jigger.....	55	.85	16	.92	23	.94	16	.65
Dyeing-machine tenders, cloth, other.....	114	.79	31	.95	53	.80	30	.62
Dyeing-machine tenders, yarn.....	60	.85	23	.88	35	.84	2	(2)
Electricians, maintenance.....	175	1.02	53	1.03	44	1.05	78	.90
Inspectors, cloth, hand.....	94	.90	35	.99	41	.86	18	.80
Inspectors, cloth, machine.....	182	.70	22	.84	54	.81	106	.78
Janitors.....	980	.64	136	.68	93	.67	751	.60
Loom fixers, Jacquard.....	275	1.26	50	1.13	187	1.32	38	1.14
Loom fixers, other than Jacquard.....	3,722	1.11	1,163	1.14	869	1.10	1,690	1.10
Machinists, maintenance.....	251	1.04	85	1.08	55	1.14	111	.97
Maintenance men, general utility.....	173	.89	60	.90	77	.93	36	.81
Mechanics, maintenance.....	423	.90	58	.99	110	.91	255	.88
Slasher tenders.....	730	.94	213	1.03	159	.90	358	.80
Stock clerks.....	246	.79	62	.85	53	.76	131	.77
Tenter frame tenders.....	100	.81	32	.83	57	.84	11	.60
Truckers, hand (bobbin boys).....	1,274	.66	125	.66	436	.64	713	.67
Truckers, hand (general).....	1,288	.67	201	.68	151	.69	936	.66
Twister tenders and spinners, 5-b.....	1,275	.73	143	.92	553	.68	579	.73
Watchmen.....	635	.66	144	.71	277	.62	214	.67
Weavers, Jacquard loom.....	1,057	1.17	69	1.01	908	1.19	80	.98
Weavers:								
Plain automatic loom.....	1,659	.97	659	.96	363	1.11	637	.90
Box loom.....	1,876	.96	354	.95	901	.97	621	.95
Dobby loom.....	1,478	.94	448	.94	479	.97	551	.93
Other looms.....	304	1.06	200	1.09	44	1.11	60	.95
Winders, yarn.....	420	.69	27	.80	313	.68	80	.72
Working foremen, processing departments.....	864	1.09	259	1.18	249	1.03	356	1.06
<i>Women</i>								
Women—All plant occupations.....	39,800	.74	9,200	.77	15,300	.72	15,300	.73
Inspectors, cloth, hand.....	705	.69	406	.70	117	.61	182	.71
Inspectors, cloth, machine.....	915	.70	282	.69	168	.66	465	.73
Inspectors, yarn.....	210	.70	55	.70	102	.71	53	.66
Janitors.....	194	.63	41	.65	33	.64	120	.63
Slasher tenders.....	77	.85	22	.79	12	.89	43	.87
Truckers, hand (bobbin girls).....	178	.64	19	.69	114	.62	45	.68
Truckers, hand (general).....	367	.66	150	.66			217	.66
Twister tenders and spinners, 5-b.....	3,315	.71	396	.74	1,600	.69	1,319	.72
Weavers, Jacquard loom.....	412	1.09	83	1.00	317	1.11	12	1.04
Weavers:								
Plain automatic loom.....	1,211	.92	604	.94	116	.97	491	.89
Box loom.....	1,766	.92	203	.97	1,145	.91	418	.92
Dobby loom.....	1,281	.91	337	.93	566	.90	378	.92
Other looms.....	91	.95	15	1.11	15	.80	61	.95
Winders, yarn.....	13,373	.71	2,095	.78	6,772	.68	4,506	.74
Working foremen, processing departments.....	247	.77	18	.86	185	.75	44	.83

<sup>1</sup> Excludes premium pay for overtime and night work.<sup>2</sup> Insufficient number of workers to justify presentation of an average.

Among women, yarn winders (at 71 cents an hour) accounted for over a third of those engaged in plant work; twister tenders and spinners, 5-b, at this same hourly average, and weavers, with average



earnings ranging from 20 to 38 cents more, according to type of loom, also represented a substantial number of women workers. The difference between men's and women's earnings was roughly 5 percent in jobs employing substantial numbers of both; but, in general, men's earnings exceeded those of women by about 15 percent.

Minimum job and entrance rates at the time of the study ranged from 40 to over 80 cents, with the greatest concentration of the mills (about a third) at the 65-cent level.

Office workers were predominantly women, who averaged substantially less than men in jobs where both were employed. Hand bookkeepers of either sex earned the most and general clerks and class B copy typists, the least.

#### GEOGRAPHIC VARIATIONS IN EARNINGS

In the various regions average earnings of all plant workers, as well as those for men and women separately, fell within a range of 5 cents an hour below or above the national average. Between the highest- and lowest-paying regions, New England and the Southeast, respectively, the difference was only 7 cents, the spread between men's earnings being slightly greater than that for women. Average earnings of women twister tenders and spinners, 5-b, varied by only 5 cents among the 3 regions, although the earnings of individual workers ranged from less than 50 cents to over \$1.40 in the country as a whole, with more than half receiving between 65 and 75 cents. Most of the women spinners in New England and the Southeast earned between 65 and 75 cents, while in the Middle Atlantic States a little more than two-fifths were concentrated in this interval. Moreover, individual earnings of these workers covered a wider range in cloth than in yarn mills, nationally and in both New England and the Southeast. In the latter region men and women spinners' earnings in cloth mills had a range of over 97 and 87 cents an hour, respectively, as against 25 and 57 cents in yarn mills. With the exception of women in the Middle Atlantic region, workers in this occupation averaged from 2 to 5 cents an hour more in cloth than in yarn mills.

Comparing weavers' earnings on a geographic basis, men operating plain automatic looms in the Middle Atlantic ranked highest in the wage scale for this job; more than 40 percent earned between \$1.05 and \$1.15 an hour compared to less than 1 percent in the Southeast. Although New England had fewer box loom weavers at the lower wage levels (none received less than 70 cents compared to lower limits of less than 50 cents in the Middle Atlantic and 60 cents in the Southeast), its average for men (95 cents) was exceeded by the Middle Atlantic and equalled by the Southeast region, while New England women had a substantial advantage over those in the other two regions.

The regional averages for women yarn winders, the largest single group of women workers, ranged from 68 cents in the Middle Atlantic to 78 in New England. Only 4 cents (\$1.10 in the Middle Atlantic and the Southeast regions, compared with \$1.14 in New England) separated the averages for loom fixers, other than Jacquard, the occupation including the largest number of men.

Among wage areas for which data were tabulated separately, over-all earnings of plant workers were almost 60 percent higher in Pat-

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mills with 20 to 100 employees. However, average rates for women in the large mills were higher by twice this percentage nationally, and in the Southeast by roughly four times.

*Size of community.*—In general, mills in large communities paid workers not quite 3 percent more than did those in medium- and small-sized cities. Regionally, however, the picture was quite different. Earnings of workers in the Middle Atlantic urban areas of 100,000 or more population were roughly 10 percent above those in medium- and small-sized communities, while in southeastern cities of

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25,000 to 100,000 population, earnings were almost 10 percent above those in the larger communities and 5 percent above those in cities of under 25,000 population.

*Unionization.*—The advantage in earnings of workers in unionized over those in nonunionized plants was roughly 7 percent for the country as a whole and only slightly more in the Middle Atlantic region where the differential in earnings was greatest.

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2-weeks paid vacation. Plans for insurance of persons provided in a majority of the mills, with life and health insurance the types most frequently offered to plant and office workers.



The regional averages for women yarn winders, the largest single group of women workers, ranged from 68 cents in the Middle Atlantic to 78 in New England. Only 4 cents (\$1.10 in the Middle Atlantic and the Southeast regions, compared with \$1.14 in New England) separated the averages for loom fixers, other than Jacquard, the occupation including the largest number of men.

Among wage areas for which data were tabulated separately, over-all earnings of plant workers were almost 60 percent higher in Paterson, N. J., than in Scranton, Pa. Greenville, S. C., representing over a fourth of the industry in the entire southeastern region, fell between these two extremes with an over-all average for plant workers of 79 cents, the same as that for the country as a whole. Paterson, historically important in the silk industry, reflects in its high wage position the influence of product differences, skill requirements (Jacquard loom weaving predominated in fabric construction), unionization (all but 1 of the 20 mills covered were unionized), and incentive methods of wage payment (almost two-fifths of the plant workers were paid on this basis).

Since the time of this study, wage increases amounting to an estimated 10 cents an hour have been granted to plant workers in the majority of northern cloth mills; the increase was about 10 percent in the South. An over-all figure for southeastern mills puts the wage increase at an estimated 7 cents an hour, which in part reflects increases of about  $8\frac{1}{2}$  cents to plant workers in the Greensboro-Burlington area, 8 cents in Greenville and  $6\frac{1}{2}$  cents in Charlotte.

Marked variation between the North and South was found with respect to work schedules. A 40-hour week was the most common in all regions except the Southeast, where two-thirds of the plants studied reported a 48-hour workweek.

#### OTHER FACTORS IN VARIATIONS IN EARNINGS

*Size of mill.*—Earnings variations among mills of different sizes were not great for the country as a whole—the level of earnings of workers in mills with over 500 workers was about 6 percent higher than in mills with 20 to 100 employees. However, average rates for women in the large mills were higher by twice this percentage nationally, and in the Southeast by roughly four times.

*Size of community.*—In general, mills in large communities paid workers not quite 3 percent more than did those in medium- and small-sized cities. Regionally, however, the picture was quite different. Earnings of workers in the Middle Atlantic urban areas of 100,000 or more population were roughly 10 percent above those in medium- and small-sized communities, while in southeastern cities of

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25,000 to 100,000 population, earnings were almost 10 percent above those in the larger communities and 5 percent above those in cities of under 25,000 population.

*Unionization.*—The advantage in earnings of workers in unionized over those in nonunionized plants was roughly 7 percent for the country as a whole and only slightly more in the Middle Atlantic region where the differential in earnings was greatest.

Unionization was most extensive in the New England region. Almost a third of all plants studied in the country as a whole and in the Middle Atlantic States were operating under the terms of union agreements, as compared with nearly half of those in New England. In the Southeast, only about 1 out of 12 plants was unionized. In terms of total employment, a third of the industry's workers were organized; by region, less than 5 percent of the southeastern workers were covered as compared to 40 percent in the Middle Atlantic and 72 percent in New England.

*Method of wage payment.*—Similarly, in the regions combined, earnings of incentive workers were about 9 percent higher than those of time workers, but in New England and the Southeast, the percentage difference was a little more. Nearly two-thirds of the plants studied had incentive systems, generally based on individual piecework, and more than a third of the industry's workers were paid according to productivity. Weavers comprised the bulk of incentive workers; 9 out of every 10 were paid on this basis.

### *Supplementary Benefits*

Less than half of the plants studied paid bonuses, unrelated to productivity, to plant workers. Office personnel in about half of the plants with clerical staffs received similar additional compensation; for both, the bonus was generally given at Christmas time. Paid vacations were more widespread throughout the industry; a majority of the mills granted vacations, with 1 week the usual time allowed. Office workers in New England and the Southeast more often received a 2-weeks' paid vacation. Plans for insurance or pensions were also provided in a majority of the mills, with life and health insurance the types most frequently offered to plant and office workers.

## Wage Structure of General Automobile Repair Shops, July 1946<sup>1</sup>

AUTOMOBILE REPAIR SHOPS constitute an important source of peacetime employment for skilled mechanics as well as unskilled labor. Interest in this type of work was especially prominent among returning veterans, many of whom entered the industry to learn a trade as a possible stepping stone to self-employment. It was partly for this reason that the Bureau of Labor Statistics undertook a study of wages and related conditions of work in this industry in July 1946.

### *Average Hourly Earnings*

The straight-time hourly earnings of workers in this industry averaged \$1.23 in July 1946 and ranged from less than 50 cents to more than \$3.00. Within this range there was little concentration of earnings at any one rate or group of rates, but almost a third of the workers received between \$1.00 and \$1.35 an hour.

Class A automotive mechanics, a group which included almost 40 percent of the workers studied, received an average hourly wage of \$1.46 (table 1). Metal-body repairmen were paid the highest average wage (\$1.61) and automobile washers the lowest (77 cents).

### *Geographic and Occupational Variations in Earnings*

In terms of the level of earnings for all workers, the national average of \$1.23 was exceeded in the Pacific area (\$1.53), Great Lakes (\$1.26), and Middle West (\$1.24).<sup>2</sup> Workers in the Border States (\$1.10) and the Southeast (\$1.11) received slightly higher earnings, on the average, than workers in New England (\$1.06).

One-fourth of the workers in the Southeast and about a fifth of those in the Southwest received less than 65 cents an hour, while less than 1 percent of the workers in the Pacific region were in this category. In the latter region, 17 percent of the workers were paid as much as \$1.90 an hour, but only about 4 percent in New England fared as well.

<sup>1</sup> Prepared by Fred W. Mohr of the Bureau's Wage Analysis Branch. The field work for the study was under the direction of the Bureau's Regional Wage Analysts. More detailed information is presented in a mimeographed report (Wage Structure-General Automobile Repair Shops, July 1946).

Data are based on a study of 1,399 establishments employing more than 25,000 workers. Included were general automobile repair shops and repair departments of retail motor vehicle sales agencies employing 10 or more workers. The scope of the study corresponds to industries 531 and 8861 in the Standard Industrial Classification Manual issued by the Bureau of the Budget. Only those wage areas having at least 100,000 population were covered.

<sup>2</sup> For regions used in this study see table 1.



TABLE 1.—Average hourly wage rates (straight-time hourly earnings) <sup>1</sup> for men in selected occupations in general automobile repair shops by region, <sup>2</sup> July 1946

Occupation and grade	United States		New England		Middle Atlantic		Border States		Southeast	
	Number of work-ers	Average hourly rates	Number of work-ers	Average hourly rates	Number of work-ers	Average hourly rates	Number of work-ers	Average hourly rates	Number of work-ers	Average hourly rates
Body repairmen, metal.....	7,682	\$1.61	330	\$1.39	813	\$1.56	715	\$1.49	1,186	\$1.57
Electricians, automotive.....	993	1.52	64	1.50	116	1.31	39	1.53	240	1.42
Greasers.....	4,228	.98	226	.84	840	.87	434	.72	548	.91
Mechanics, automotive, class A.....	28,661	1.46	1,642	1.25	4,559	1.37	2,606	1.35	4,581	1.46
Mechanics, automotive, class B.....	4,577	1.03	313	.96	1,374	1.03	350	.98	951	.95
Washers, automobile.....	3,453	.77	113	.75	461	.78	414	.64	779	.60
Occupation and grade	Great Lakes		Middle West		Southwest		Mountain		Pacific	
	Number of work-ers	Average hourly rates	Number of work-ers	Average hourly rates	Number of work-ers	Average hourly rates	Number of work-ers	Average hourly rates	Number of work-ers	Average hourly rates
Body repairmen, metal.....	2,121	\$1.61	359	\$1.49	451	\$1.63	154	\$1.45	1,553	\$1.80
Electricians, automotive.....	145	1.59	60	1.39	32	1.45	34	1.61	263	1.71
Greasers.....	963	1.01	169	1.04	159	.77	90	.93	799	1.30
Mechanics, automotive, class A.....	6,821	1.46	1,447	1.47	1,526	1.50	518	1.37	4,961	1.68
Mechanics, automotive, class B.....	895	1.08	72	.98	167	.91	6	( <sup>3</sup> )	449	1.19
Washers, automobile.....	920	.89	161	.79	171	.65	42	.80	392	1.01

<sup>1</sup> Excludes premium pay for overtime and night work.

<sup>2</sup> The regions used in this study are as follows: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota; *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas; *Mountain*—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming; *Pacific*—California, Nevada, Oregon, and Washington.

<sup>3</sup> Insufficient number of workers to justify presentation of an average.

Occupationally, the regional averages followed somewhat the same pattern. The Pacific region showed the highest average earnings for each occupation. New England had the lowest average for body repairmen and class A mechanics, the Border region for greasers, the Southwest for class B mechanics, and the Southeast for washers.

In Cleveland, Flint, Los Angeles, Portland, San Diego, and San Francisco, the average earnings for men shop workers amounted to \$1.50 or more an hour (table 2). At the other extreme, in Reading and Scranton, such average earnings were less than 90 cents an hour. For a majority of the areas the over-all average earnings were between \$1.00 and \$1.30 an hour.

Body repairmen had average earnings in excess of \$2.00 in Cleveland and Youngstown, and in all cities this occupational group averaged above \$1.05 an hour. Automobile washers, at the other extreme, received average earnings exceeding \$1.00 an hour in only 7 cities, and averaged less than 65 cents in about a fifth of the wage areas.

### Other Factors in Variations in Earnings

*Size of establishment.*—Although workers in establishments with more than 20 repair-shop employees generally received higher average earnings than workers in smaller establishments, the differences in

most cases were neither pronounced nor uniform among the different occupations and regions.

TABLE 2.—Average straight-time hourly earnings<sup>1</sup> for men in selected occupations in general automobile repair shops by wage area, July 1946

Wage area	Average hourly rates for—					
	All occu- pations <sup>2</sup>	Body re- pairmen, metal	Electri- cians, auto- motive	Greasers	Mechan- ics, auto- motive, class A	Mechan- ics, auto- motive, class B
Akron, Ohio.....	\$1.40	\$1.74	(?)	\$1.24	\$1.53	\$0.94
Albany, N. Y.....	.96	1.21	(?)	.69	1.18	.98
Atlanta, Ga.....	.98	1.51	\$1.22	.79	1.29	.92
Baltimore, Md.....	1.16	1.52	(?)	.79	1.36	.99
Birmingham, Ala.....	1.06	1.62	1.25	.98	1.33	1.20
Boston, Mass.....	1.15	1.55	1.52	.85	1.39	1.01
Bridgeport, Conn.....	1.12	1.52	(?)	.97	1.26	1.00
Buffalo, N. Y.....	1.16	1.54	—	.91	1.28	1.00
Canton, Ohio.....	1.24	1.47	(?)	1.00	1.42	.96
Charlotte, N. C.....	1.02	1.40	—	.66	1.37	.74
Chattanooga, Tenn.....	1.26	1.87	(?)	.84	1.56	.83
Chicago, Ill.....	1.22	1.56	1.34	.93	1.35	1.16
Cincinnati, Ohio.....	1.07	1.34	2.05	.85	1.31	.95
Cleveland, Ohio.....	1.56	2.19	2.04	1.07	1.81	1.17
Columbus, Ohio.....	1.19	1.35	(?)	1.06	1.36	.94
Dallas, Tex.....	1.44	1.85	(?)	.91	1.69	.89
Dayton, Ohio.....	1.24	1.54	—	.96	1.38	.97
Denver, Colo.....	1.08	1.37	1.50	.90	1.27	—
Des Moines, Iowa.....	1.10	1.20	1.19	1.12	1.17	—
Detroit, Mich.....	1.46	1.82	(?)	1.20	1.74	1.34
Duluth, Minn.....	1.02	1.20	(?)	.87	1.18	1.02
Erie, Pa.....	1.40	1.83	—	1.20	1.59	.91
Fall River-New Bedford, Mass.....	.96	1.07	—	.77	1.07	.81
Flint, Mich.....	1.71	1.92	—	1.34	1.94	—
Fort Wayne, Ind.....	1.37	1.56	(?)	.93	1.59	.91
Fort Worth, Tex.....	1.09	1.71	—	.73	1.35	.82
Grand Rapids, Mich.....	1.13	1.40	1.24	.98	1.34	.94
Hartford, Conn.....	1.16	1.54	—	.93	1.39	1.02
Houston, Tex.....	1.34	1.94	2.07	.77	1.65	.90
Indianapolis, Ind.....	1.25	1.56	1.51	1.20	1.54	.99
Jacksonville, Fla.....	1.14	1.72	1.57	1.15	1.49	.96
Kansas City, Mo.....	1.31	1.61	1.61	1.14	1.53	1.04
Knoxville, Tenn.....	1.03	1.19	—	.83	1.34	.70
Los Angeles, Calif.....	1.62	1.97	1.80	1.46	1.84	1.18
Louisville, Ky.....	1.13	1.38	—	.84	1.32	.88
Lowell, Mass.....	.91	1.14	(?)	.75	1.05	.86
Memphis, Tenn.....	1.15	1.61	(?)	.71	1.65	1.06
Miami, Fla.....	1.42	1.92	1.69	1.28	1.72	1.14
Milwaukee, Wis.....	1.13	1.39	1.88	.97	1.38	1.10
Minneapolis-St. Paul, Minn.....	1.17	1.34	1.76	.99	1.30	(?)
Nashville, Tenn.....	.95	1.36	—	.66	1.23	.85
Newark, N. J.....	1.22	1.73	1.35	.92	1.42	1.04
New Haven, Conn.....	1.13	1.89	(?)	.85	1.39	1.03
New Orleans, La.....	1.19	1.34	—	.78	1.57	.85
New York, N. Y.....	1.21	1.74	1.24	.87	1.38	1.08
Norfolk, Va.....	1.13	1.53	—	.70	1.45	.96
Oklahoma City, Okla.....	1.05	1.40	—	.77	1.26	.89
Omaha, Nebr.....	1.08	1.20	(?)	.98	1.24	.82
Paterson, N. J.....	1.12	1.29	—	1.11	1.35	.93
Peoria, Ill.....	1.13	1.51	—	1.01	1.35	.88
Philadelphia, Pa.....	1.18	1.53	(?)	.79	1.48	1.03
Pittsburgh, Pa.....	1.08	1.43	1.35	.83	1.28	1.01
Portland, Oreg.....	1.53	1.52	1.87	1.11	1.62	(?)
Providence, R. I.....	.95	1.14	(?)	.69	1.16	.94
Reading, Pa.....	.89	1.08	—	.75	1.03	.85
Richmond, Va.....	1.01	1.40	(?)	.68	1.23	1.14
Rochester, N. Y.....	1.31	1.82	(?)	1.27	1.62	1.00
Sacramento, Calif.....	1.21	1.38	(?)	.93	1.24	—
St. Louis, Mo.....	1.31	1.67	—	.98	1.64	1.06
Salt Lake City, Utah.....	1.23	1.55	1.87	.99	1.52	(?)

See footnotes at end of table.

TABLE 2.—Average straight-time hourly earnings<sup>1</sup> for men in selected occupations in general automobile repair shops by wage area, July 1946—Continued

Wage area	Average hourly rates for—						
	All occupations <sup>2</sup>	Body repairmen, metal	Electricians, automotive	Greasers	Mechanics, automotive, class A	Mechanics, automotive, class B	Washers, automotive
San Antonio, Tex.	\$0.96	\$1.85	\$1.15	\$0.69	\$1.33	\$0.83	\$0.58
San Diego, Calif.	1.61	1.90	1.68	1.31	1.83	1.26	.98
San Francisco, Calif.	1.60	1.74	( <sup>3</sup> )	1.19	1.60		1.17
Scranton, Pa.	.82	1.13	1.11	.66	1.07	.84	.56
Seattle, Wash.	1.41	1.62	1.53	1.13	1.48		1.08
South Bend, Ind.	1.24	1.43	1.52	1.11	1.47	.95	1.00
Spokane, Wash.	1.24	1.49	1.44	1.04	1.41	1.00	.90
Springfield, Mass.	1.12	1.42	( <sup>3</sup> )	.84	1.31	.89	( <sup>3</sup> )
Syracuse, N. Y.	1.27	1.45	1.44	1.23	1.41	1.01	1.18
Tampa, Fla.	.95	1.28	( <sup>3</sup> )	.95	1.31	.93	.58
Toledo, Ohio	1.31	1.90	1.58	1.17	1.42	.93	.84
Trenton, N. J.	1.11	1.43	( <sup>3</sup> )	.80	1.28	.98	.70
Tulsa, Okla.	1.17	1.34	1.13	.78	1.41	1.08	.65
Utica, N. Y.	1.19	1.43	( <sup>3</sup> )	.93	1.41	1.09	( <sup>3</sup> )
Washington, D. C.	1.14	1.60	( <sup>3</sup> )	.74	1.41	.94	.68
Wichita, Kans.	1.04	1.28	1.30	.94	1.15	.85	.73
Wilmington, Del.	1.10	1.41	( <sup>3</sup> )	.80	1.33	1.06	.78
Worcester, Mass.	.97	1.26	( <sup>3</sup> )	.78	1.12	.92	( <sup>3</sup> )
Youngstown, Ohio	1.21	2.10	1.46	.86	1.46	.92	.91

<sup>1</sup> Excludes premium pay for overtime and night work.<sup>2</sup> Includes data for other occupations in addition to those shown separately.<sup>3</sup> Insufficient number of workers to justify presentation of an average.

**Method of wage payment.**—More than half of the establishments paid at least 25 percent of their workers on an incentive basis. About three-eighths of the workers studied were on this basis, ranging from 47 percent in the Mountain region to 27 percent in the Middle Atlantic. In seven-eighths of the establishments in which incentive rates predominated workers were paid on an individual piece-work basis, commonly in the form of a percentage of the labor charge for a job.

Workers paid on an incentive basis averaged more than those paid on a time basis, the difference nationally ranging from about 50 percent for greasers to less than 10 percent for class B mechanics. Incentive workers in the other 4 occupations averaged roughly a third more than time-rated workers. The relationship between the average earnings of time and incentive workers varied in the different regions. For example, incentive-paid class A mechanics in the Mountain region averaged only about 15 percent more than time-rated workers in the occupation, but in the Southeast region the former group averaged almost 50 percent more than the latter.

**Unionization.**—About a fifth of all establishments, employing a fourth of the workers, were covered by union agreements. As establishments in individual cities usually were predominantly either union or nonunion, the unionization comparison was limited to nine wage areas in which sufficient numbers of both union and nonunion establishments were found. In most instances, workers in union establishments received higher wages, but this was not universally true.



*Hours of work.*—A 44-hour workweek was the most common work schedule, although almost 10 percent of the establishments operated on the basis of a 40-hour week and about 14 percent on a 48-hour schedule. In a fourth of the establishments workers were employed for more than 48 hours a week. Extra-shift operation was very uncommon; only about 1 percent of the workers were reported on second or third shifts.

### *Supplementary Benefits*

Nonproduction bonuses were paid, usually at Christmas, to workers in almost a third of the establishments. Such additional income averaged over all workers in the industry added less than a cent an hour to the workers' pay. Only four establishments had formal provisions for paid lunch periods.

Paid vacations after 1 year of service were reported by more than three-fourths of the establishments. In most cases eligible workers received a vacation of 1 week, but 128 establishments allowed 2 weeks.

Only 63 of the 1,399 establishments had formal provisions for paid sick leave; 25 of these provided 1 week, and 34 allowed 2 weeks after 1 year of service.

More than a third of the establishments had some type of insurance or pension plan. Life insurance was the most prevalent type, although about a sixth of the establishments reported health-insurance programs.

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## Weekly Salaries of Clerical Workers in 20 Cities, October 1946<sup>1</sup>

DATA ON WEEKLY SALARIES of regularly employed full-time workers in 13 clerical occupations in October 1945 and 1946, shown in the following table, are based on surveys made by the National Industrial Conference Board in 20 cities. The salary rates do not include overtime, but do include incentive payments and cost-of-living and production bonuses earned during the regular working hours.

*Weekly salaries of clerical workers, October 1945 and 1946*

Position	Weekly salaries of—									
	All employees				Middle 50 percent of employees					
	Ranges		Mode		Low		Median		High	
	October 1945	October 1946	October 1945	October 1946	October 1945	October 1946	October 1945	October 1946	October 1945	October 1946
Billing machine operators.....	\$18-\$63	\$21-\$74	\$28	\$38	\$27	\$32	\$30	\$36	\$36	\$42
Bookkeeping machine operators..	16-57	21-63	27	29	27	30	30	34	34	38
Calculating machine or comptometer operators.....	17-54	19-63	30	35	28	32	32	37	37	43
Key punch operators.....	18-47	20-56	30	35	27	30	30	35	34	39
Junior dictating machine transcribers.....	17-40	20-49	28	28	24	28	28	30	30	33
Senior dictating machine transcribers.....	20-60	23-64	32	35	28	32	32	36	37	41
Junior copy typists.....	16-45	18-53	25	30	23	28	25	30	28	33
Senior copy typists.....	17-51	21-59	30	36	27	32	30	36	34	40
Stenographers.....	16-63	19-72	30	35	29	33	33	38	37	43
File clerks.....	16-58	18-68	21	30	22	26	26	31	31	37
Receptionists.....	20-58	23-63	28	35	28	32	32	37	36	42
Telephone switchboard operators..	16-56	21-58	30	46	30	33	33	37	36	42
Office boys or girls.....	15-38	16-44	23	25	20	24	22	27	24	30

<sup>1</sup> Data are from National Industrial Conference Board, Inc. (New York): Studies in Personnel Policy, No. 74—Clerical Salary Survey of Rates Paid, October 1945; Conference Board Management Record, January 1947—Clerical Salary Rates Paid in October 1946.

## Work Injuries

### Work Injuries in Manufacturing, Fourth Quarter 1946

FOLLOWING the same seasonal pattern as in the three preceding years, the average frequency of disabling work injuries<sup>1</sup> in manufacturing industries turned sharply downward in the fourth quarter of 1946. In this period disabling work injuries averaged 16.2 for every million employee-hours worked, as compared with 18.1 in the second and third quarters and 18.2 in the first quarter.

During the fourth quarter of 1946, an estimated total of approximately 124,100 manufacturing workers were disabled for 1 or more days as a result of on-the-job injuries. About 400 workers had died as a result of these injuries and about 5,700 others were known to have developed permanent physical impairments at the time the preliminary reports for the quarter were prepared.

The working time lost by those injured during the quarter is estimated as about 2,482,000 man-days, representing a value in wages alone of nearly 20 million dollars. This includes no allowance for the economic losses arising from the deaths and permanent impairments.

The fourth-quarter estimate of 124,100 disabling injuries represents a decline of about 4,700 injuries from that of the third quarter—a substantially smaller reduction than would be expected from a comparison between the injury frequency rates for the two periods. The improvement in the frequency rate, however, was offset to some extent by the general rise in employment during the last quarter.

The general downward movement in injury frequency indicated by the drop in the all-manufacturing rate was reflected throughout the list of individual industries. Seventy-five of the 114 manufacturing classifications for which data were available had significantly lower injury-frequency rates in the fourth quarter than in the third quarter of 1946. Twenty-five of these were major reductions, each amounting to a drop of 5 or more full frequency-rate points. The downward trend was apparent in all of the major industry groups, but was most pronounced in the iron and steel and the lumber groups. In the iron and steel group, 19 of the 24 separate industry classifications had lower

<sup>1</sup> A disabling work injury is one which results in (a) death or (b) permanent physical impairment or (c) renders the injured person unable to work for a period of time beyond the day on which the injury occurred.



injury-frequency rates in the fourth quarter than in the third, including 10 with decreases amounting to at least 5 frequency-rate points. In the lumber group all of the 5 classifications had improved frequency rates, 4 of these showing reductions of 5 or more points.

The best fourth-quarter frequency rate for any of the 114 listed industry classifications was that of the electric-lamp (bulb) industry, which had an average injury-frequency rate of 2.4 for the period. Other industries with low rates for the quarter included photographic apparatus and materials, 3.9; synthetic rubber, 4.2; optical and ophthalmic goods, 4.8; and explosives manufacturing, 4.9. In contrast, the fourth-quarter frequency rates for sawmills, combined saw and planing mills, wooden-container plants, and iron foundries were all above 40.

*Industrial injury-frequency rates <sup>1</sup> for selected manufacturing industries, fourth quarter 1946, with cumulative rates for 1946*

Industry <sup>1</sup>	Fourth quarter				Frequency rate		
	Number of establishments <sup>2</sup>	Frequency rate <sup>3</sup> for—			Cumulative Jan.-Dec. 1946 <sup>4</sup>	1945: Annual	
		October	November	December			Fourth quarter
Apparel:							
Clothing, men's and boys' .....	380	9.1	7.3	6.5	7.7	8.1	8.4
Clothing, women's and children's .....	288	6.9	4.7	8.6	6.7	4.6	4.6
Apparel and accessories, not elsewhere classified .....	38	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	8.0	6.9	6.3
Trimmings and fabricated textile products, not elsewhere classified .....	58	18.7	10.0	15.9	14.9	15.0	17.4
Chemicals:							
Compressed and liquefied gases .....	39	9.7	12.7	9.2	10.5	8.3	17.7
Drugs, toiletries, and insecticides .....	71	11.9	12.3	10.9	11.7	13.9	14.9
Explosives .....	43	5.1	5.4	4.0	4.9	5.1	3.6
Industrial chemicals .....	178	12.9	11.6	10.3	11.6	12.5	16.0
Paints, varnishes, and colors .....	60	16.8	12.9	13.4	14.4	14.6	17.6
Plastic materials, except rubber .....	19	5.1	5.9	6.4	5.8	6.7	9.5
Soap and glycerin .....	47	7.2	8.0	5.6	6.9	7.7	11.6
Synthetic rubber .....	22	1.7	6.2	4.9	4.2	3.2	6.6
Synthetic textile fibers .....	19	6.1	5.4	4.0	5.2	5.1	8.9
Chemical products, not elsewhere classified .....	48	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	12.7	19.8	15.2
Electrical equipment:							
Automotive electrical equipment .....	15	25.1	30.6	24.8	26.6	17.3	13.7
Batteries .....	23	10.8	13.4	13.6	12.6	18.5	21.8
Communication and signaling equipment, except radio .....	26	7.8	5.3	5.7	6.3	7.1	6.4
Electrical appliances .....	28	13.7	15.6	13.6	14.3	14.4	15.3
Electrical equipment for industrial use .....	223	11.9	10.9	9.7	10.8	11.3	9.4
Electrical lamps (bulbs) .....	15	1.9	2.5	2.7	2.4	3.4	5.1
Insulated wire and cable .....	31	16.1	10.4	16.6	14.4	18.3	18.0
Radios and phonographs .....	117	6.5	6.3	5.7	6.2	6.5	6.8
Electrical equipment, not elsewhere classified .....	21	5.6	6.4	8.4	6.8	7.9	8.2
Food:							
Baking .....	27	31.2	19.4	15.7	22.1	20.3	18.6
Canning and preserving .....	40	15.7	15.3	15.0	15.4	22.5	27.2
Confectionery .....	22	12.1	11.3	18.7	14.0	16.9	18.1
Dairy products .....	86	15.5	15.1	17.4	16.0	25.1	33.1
Distilleries .....	40	11.4	12.2	9.6	11.0	10.0	17.1
Flour, feed, and grain-mill products .....	16	21.6	18.0	13.5	17.8	15.4	27.6
Slaughtering and meat packing .....	349	29.7	27.3	26.8	27.7	31.8	32.4
Food products, not elsewhere classified .....	42	14.2	15.8	9.5	13.2	16.8	20.8
Furniture and lumber products:							
Furniture, wood .....	90	28.4	25.5	25.3	26.4	25.6	27.5
Mattresses and bedsprings .....	75	25.6	23.8	23.6	24.4	26.4	27.8
Wooden containers .....	218	48.7	41.9	35.4	42.2	44.8	41.1
Miscellaneous wood products, not elsewhere classified .....	95	23.2	22.2	29.3	24.9	30.3	32.1

See footnotes at end of table.

*Industrial injury-frequency rates<sup>1</sup> for selected manufacturing industries, fourth quarter 1946, with cumulative rates for 1946—Continued*

Industry <sup>2</sup>	Fourth quarter					Frequency rate	
	Number of establishments <sup>3</sup>	Frequency rate <sup>4</sup> for—				Cumulative Jan.-Dec. 1946 <sup>5</sup>	1946 Annual <sup>6</sup>
		October	November	December	Fourth quarter		
<b>Iron and steel:</b>							
Bolts, nuts, washers, and rivets.....	46	20.4	16.6	20.9	19.3	18.2	21.4
Cold finished steel.....	37	22.5	14.6	15.9	17.7	24.1	22.1
Cutlery and edge tools.....	34	23.4	15.0	18.1	18.8	19.2	26.0
Fabricated structural steel.....	211	28.5	24.5	24.3	25.8	28.7	27.4
Forgings, iron and steel.....	121	29.5	25.2	20.1	25.1	27.3	32.4
Foundries, iron.....	379	43.9	42.3	36.4	41.0	45.5	44.8
Foundries, steel.....	107	36.9	30.0	36.2	34.4	35.6	35.9
Hardware.....	47	15.9	13.2	13.4	14.2	16.9	16.6
Heating equipment, not elsewhere classified.....	79	30.7	29.6	23.8	28.2	28.6	33.8
Iron and steel.....	154	8.7	7.8	7.3	8.0	8.8	8.7
Metal coating and engraving.....	58	31.9	18.2	18.7	22.8	25.4	31.4
Ornamental metal work.....	40	( <sup>7</sup> )	( <sup>7</sup> )	( <sup>7</sup> )	35.0	29.1	26.2
Plate fabrication and boiler-shop products.....	116	41.1	36.5	32.2	36.5	36.6	32.8
Plumbers' supplies.....	36	22.0	22.6	19.3	21.4	20.3	16.4
Screw-machine products.....	94	19.5	17.5	18.9	18.6	20.4	15.4
Sheet-metal work.....	58	26.6	21.3	18.2	22.2	28.1	25.6
Stamped and pressed metal products, not elsewhere classified.....	235	24.4	25.3	21.5	23.8	23.0	22.2
Steam fittings and apparatus.....	51	25.5	24.6	18.4	22.9	22.2	22.9
Steel barrels, kegs, drums, and packages.....	29	13.0	14.1	15.0	14.0	17.5	31.7
Steel springs.....	13	18.3	10.2	18.9	15.8	24.3	17.4
Tin cans and other tinware.....	23	19.0	11.2	20.1	16.8	18.9	17.3
Tools except edge tools.....	67	27.7	26.6	23.0	25.8	24.7	22.4
Wire and wire products.....	136	21.7	24.3	19.5	21.9	22.8	23.1
Iron and steel products, not elsewhere classified.....	28	17.1	16.8	17.1	17.0	24.6	25.7
<b>Leather:</b>							
Boots and shoes, not rubber.....	261	12.1	9.3	9.9	10.5	11.5	10.8
Leather.....	30	24.9	20.0	26.4	23.8	29.8	28.4
<b>Lumber:</b>							
Millwork, structural.....	229	41.0	33.7	33.2	36.1	37.4	35.1
Sawmills.....	60	49.2	49.3	56.8	51.6	57.6	56.6
Sawmills and planing mills combined.....	31	55.5	56.7	59.2	57.0	62.6	52.6
Planing mills.....	88	30.3	26.5	28.4	28.4	39.3	36.9
Plywood mills.....	44	37.6	45.0	30.7	37.8	41.9	40.9
<b>Machinery, except electric:</b>							
Agricultural machinery and tractors.....	77	23.7	18.7	16.3	19.5	21.9	23.5
Bearings, ball and roller.....	25	16.0	25.4	28.6	23.2	18.6	15.5
Commercial and household machinery.....	101	14.5	11.7	11.7	12.6	12.8	15.3
Construction and mining machinery.....	125	24.0	26.7	23.3	24.7	24.8	25.9
Elevators, escalators, and conveyors.....	25	32.1	28.3	22.2	27.0	27.3	15.1
Engines and turbines.....	48	15.7	16.4	15.1	15.7	17.0	12.4
Food-products machinery.....	58	27.6	24.9	23.1	25.3	26.0	20.5
General industrial machinery, not elsewhere classified.....	188	23.5	21.1	19.3	21.3	22.8	18.1
General machine shops (jobbing and repair).....	100	26.7	26.6	16.5	23.3	24.5	18.1
Mechanical measuring and controlling instruments.....	52	16.2	13.9	12.6	14.3	13.8	11.5
Mechanical power transmission equipment, except ball and roller bearings.....	63	33.6	22.1	20.8	25.7	22.4	19.8
Metalworking machinery.....	462	16.7	14.6	12.8	14.8	15.5	15.8
Pumps and compressors.....	84	30.8	28.3	21.4	26.9	25.9	17.5
Special industry machinery, not elsewhere classified.....	110	25.6	18.5	21.7	22.0	25.4	20.9
Textile machinery.....	20	12.8	16.3	14.5	14.4	16.2	14.1
<b>Nonferrous metals:</b>							
Aluminum and magnesium products.....	19	30.6	20.1	24.2	25.1	26.3	16.5
Foundries, nonferrous.....	235	31.2	25.6	28.1	28.4	27.2	25.5
Nonferrous basic shapes and forms.....	28	18.3	15.5	17.3	17.1	16.1	18.6
Watches, clocks, jewelry, and silverware.....	40	6.1	8.4	7.1	7.2	8.3	9.0
Nonferrous metal products, not elsewhere classified.....	63	16.8	21.2	17.3	18.4	17.4	25.3
<b>Ordnance:</b>							
Ordnance and accessories, not elsewhere classified <sup>8</sup> .....	21	7.0	3.6	5.4	5.4	7.7	14.7
<b>Paper:</b>							
Paper boxes and containers.....	306	21.7	22.8	16.9	20.5	22.9	22.0
Paper <sup>9</sup> .....	341	24.6	21.9	20.9	22.5	26.1	26.5
Paper products, not elsewhere classified.....	32	16.8	22.1	13.1	17.3	19.8	21.0

See footnotes at end of table.

Industrial injury-frequency rates <sup>1</sup> for selected manufacturing industries, fourth quarter 1946, with cumulative rates for 1946—Continued

Industry <sup>1</sup>	Fourth quarter					Frequency rate	
	Number of establishments <sup>2</sup>	Frequency rate <sup>4</sup> for—				Cumulative Jan.-Dec. 1946 <sup>4</sup>	1945: Annual
		October	November	December	Fourth quarter		
Printing:							
Book and job printing.....	53	7.5	9.8	7.2	8.1	8.6	8.5
Rubber:							
Rubber boots and shoes.....	15	15.3	12.9	10.2	12.8	12.4	12.5
Rubber tires and tubes.....	32	12.2	11.4	12.1	11.9	14.2	13.5
Rubber products, not elsewhere classified.....	79	18.4	20.3	16.3	18.3	19.7	18.2
Stone, clay, and glass:							
Glass.....	34	12.7	16.4	14.9	14.6	16.9	15.7
Pottery and related products.....	29	33.7	23.9	21.9	26.6	22.5	18.5
Stone, clay, and glass products, not elsewhere classified.....	41	24.7	25.1	18.7	22.9	20.1	18.0
Textiles:							
Cotton yarn and textiles.....	189	11.9	10.2	10.3	10.8	12.0	15.1
Dyeing and finishing textiles.....	52	19.6	15.1	17.7	17.5	18.8	19.5
Knit goods.....	81	12.0	10.4	8.6	10.4	9.8	7.7
Rayon and other synthetic and silk textiles.....	46	11.4	13.5	10.9	11.9	11.1	14.2
Woolen and worsted textiles.....	136	18.4	16.0	16.6	17.0	18.3	20.1
Miscellaneous textile goods, not elsewhere classified.....	24	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	21.4	20.7	21.1
Transportation equipment:							
Aircraft.....	19	5.6	4.5	6.0	5.3	5.1	9.4
Aircraft parts.....	27	9.3	7.1	5.7	7.4	10.5	10.6
Motor vehicles.....	92	11.0	11.5	11.8	11.4	12.3	13.0
Motor-vehicle parts.....	102	26.5	23.8	19.1	23.3	24.0	20.1
Railroad equipment.....	49	20.8	21.0	17.6	19.9	20.7	20.1
Shipbuilding.....	80	25.3	19.9	20.9	22.1	23.6	23.3
Miscellaneous manufacturing:							
Fabricated plastic products.....	36	11.3	8.8	10.2	10.2	12.9	17.4
Optical and ophthalmic goods.....	18	6.9	3.9	3.7	4.8	5.6	8.8
Photographic apparatus and materials.....	23	3.5	5.0	3.4	3.9	5.8	6.6
Professional and scientific instruments and supplies.....	59	12.4	9.5	8.7	10.3	9.9	7.1
Miscellaneous manufacturing, not elsewhere classified.....	151	17.8	16.5	14.0	16.2	17.0	11.6

<sup>1</sup> The frequency rate represents the average number of disabling industrial injuries for each million employee-hours worked.

<sup>2</sup> A few industries have been omitted from this table because the coverage for the month did not amount to 1,000,000 or more employee-hours worked.

<sup>3</sup> Number of establishments shown are for December 1946.

<sup>4</sup> Computed from all reports received for the month; not based on identical plants in successive months.

<sup>5</sup> Not available.

<sup>6</sup> Includes all ordnance classifications formerly shown separately.

<sup>7</sup> Includes "Pulp" and "Paper and pulp, integrated"; formerly shown separately.

In review, the injury record in manufacturing during 1946, as evidenced by the quarterly data now available, appears to have been slightly less favorable than in 1945. In each of the first 3 quarters of 1946 the all-manufacturing injury-frequency rate was substantially higher than in the corresponding period of 1945. The fourth quarter reduction in the 1946 rate, however, was more pronounced than the one in 1945. As a result of this sharp downward swing in the last quarter of 1946 the cumulative frequency rates for substantially the same group of industries were very similar in the 2 years—17.6 in 1946 and 17.4 in 1945. The cumulative rates now available, however, must be considered only as preliminary, subject to revision on the basis of more comprehensive reporting.



# Cooperatives

## Status of Labor Banks, 1946

THE FOUR LABOR BANKS in the United States had, by the end of 1946, increased their total assets by 8.0 percent and their deposits by 7.2 percent as compared with 1945. In the same period their capital, surplus, and undivided earnings rose 28.3 percent. Data for the individual banks are shown in table 1.

TABLE 1.—Condition of labor banks as of December 31, 1946 <sup>1</sup>

Bank	Capital, surplus, and undivided earnings	Deposits	Total assets
All banks.....	\$4, 440, 886	\$90, 069, 090	\$95, 003, 839
Amalgamated Trust & Savings Bank, Chicago, Ill.....	1, 728, 711	33, 197, 543	35, 143, 785
Brotherhood State Bank, Kansas City, Kans.....	455, 268	9, 649, 931	10, 172, 304
Union National Bank, Newark, N. J.....	656, 767	11, 497, 972	12, 221, 535
Amalgamated Bank of New York, New York, N. Y.....	1, 600, 140	35, 723, 643	37, 466, 215

<sup>1</sup> Information supplied by Industrial Relations Section, Princeton University.

Comparative figures for the whole labor-bank movement in the United States are shown in table 2 by 5-year periods <sup>2</sup> from its beginning in 1920 through 1946.

TABLE 2.—Development of labor banks in the United States, by 5-year periods, 1920-46 <sup>1</sup>

Date	Number of banks	Capital, surplus, and undivided earnings	Deposits	Total assets
December 31:				
1920.....	2	\$1, 154, 446	\$2, 258, 561	\$3, 628, 867
1925.....	36	12, 536, 901	98, 392, 592	115, 015, 273
June 30:				
1930.....	14	7, 217, 836	59, 817, 392	68, 953, 855
1935.....	4	2, 051, 943	17, 262, 281	19, 692, 385
1940.....	4	2, 684, 911	23, 847, 294	26, 931, 651
1945.....	4	3, 428, 078	72, 776, 529	76, 509, 121
1946.....	4	4, 353, 648	86, 651, 036	91, 544, 888

<sup>1</sup> Information supplied by Industrial Relations Section, Princeton University.

<sup>2</sup> For data for intervening years, see Monthly Labor Review, December 1944 (p. 1220).

## Labor-Management Disputes

### Controversies and Significant Developments, April 1947

DURING APRIL 1947, agreements, which for the most part provided for an over-all increase equivalent to 15 cents an hour for about 1 million workers, were reached without the occurrence of work stoppages in a number of large companies in the steel, automobile, electrical manufacturing, farm equipment, and communications industries.

The key settlement in steel, which furnished a "pattern" followed by other firms in the industry, came April 20 when the United Steelworkers of America (CIO) and the U. S. Steel Corp. agreed upon a new 2-year contract providing for a basic wage increase of 12½ cents an hour or \$1 a day. Other "fringe" adjustments—improved vacation allowances, correction of regional wage differentials and plant inequities, and a new severance-pay program—brought the over-all increase to about 15 cents an hour for 142,000 workers. In succeeding days other steel producers signed generally similar contracts affecting about 200,000 additional employees.

The General Motors Corporation and the United Automobile Workers (CIO) disposed of their differences in an agreement announced on April 24. This contract, covering 220,000 workers, called for a pay increase of 11½ cents an hour, 6 paid holidays (the equivalent of 3½ cents an hour), an improved vacation program, and a liberalized "call-in-pay" system. Two days later about 70,000 employees of the Chrysler Corporation secured similar adjustments following a settlement, also with the UAW-CIO.

Earlier in the month—on April 14—General Motors Corporation and the United Electrical, Radio and Machine Workers of America (CIO) had concurred on a basic wage increase of 11½ cents and 3½ cents additional to be allocated primarily to 6 paid holidays for 30,000 employees of 4 General Motors electrical divisions. In the next 2 weeks, 2 other large electrical manufacturing firms, Westinghouse and General Electric, negotiated similar over-all 15-cent hourly wage increases with the UERMWA. These agreements covered approximately 200,000 employees. The International Harvester Company and the United Farm Equipment and Metal Workers Union (CIO),

representing 32,000 workers, followed on April 28 with a wage settlement totaling 15 cents an hour.

Industrial peace in one branch of the communications industry was also maintained when Western Union and the Commercial Telegraphers Union (AFL), which represented 50,000 employees outside of New York City, arranged a settlement on April 19, the terms of which included a pay raise of 5 cents an hour, an improved sick-benefit plan, maintenance of membership, and dues check-off.

### *Strike of Telephone Workers*

The Nation's first major telephone strike, which began on April 7 with the walk-out of approximately 300,000 workers, was still in progress at the end of the month, as Government conciliators continued their efforts to bring about a settlement between the National Federation of Telephone Workers (Independent) and the American Telephone and Telegraph Company. Local negotiations between NFTW unions and the telephone companies began in most areas from mid-January to mid-February. Principal demands of the unions included a \$12 weekly wage increase, a union shop, protection against lay-offs, and an improved old-age security plan. Conferences on a local or regional basis failed to produce settlements, and in February and March affiliates of the NFTW filed 30-day strike notices. Attempts by the Department of Labor to reconcile differences through discussions with key union and telephone officials likewise proved unavailing, and the stoppage became effective April 7. On April 14, the Secretary of Labor advanced an arbitration proposal for the settlement of the dispute which both parties rejected. Later in the month, following the wage settlements in the steel, electrical manufacturing and automobile industries, Joseph A. Beirne, president of the NFTW announced that the union would accept a wage increase of \$6 a week. This offer failed, however, to break the deadlock. In a number of areas local negotiations continued, but by the end of April no settlements involving NFTW affiliates with the Bell System had been made.

### *Long Railroad Strike Settled*

The long and bitterly contested 18½-month strike of some 500 members of 13 railroad brotherhoods against the 239-mile Toledo, Peoria & Western Railroad was terminated April 17 when representatives of both parties announced that a settlement had been reached. The contract, signed 5 days later, provided for "standard" railroad rates of pay and rules, full seniority rights as of October 1, 1945, and a vacation program similar to that enjoyed by most railroad workers.



Labor-management difficulties had beset the railroad since December 1941, when the rail unions first withdrew from service following the refusal of the T. P. & W. to apply wage increases which had been obtained by other rail workers. The Government seized the carrier in March 1942 and operated it throughout the war after its president, George P. McNear, rejected several requests for arbitration. When the road was returned to private control October 1, 1945, the employees resumed their strike. Clashes between railroad guards and pickets occurred on several occasions and in February 1946 two union pickets were killed. McNear, president of the railroad, was slain by an unidentified assailant on March 10, 1947.



## Work Stoppages in the First Quarter of 1947

DURING the first quarter of 1947 work stoppages were at their lowest level since the end of the war. About 900 new stoppages, involving approximately 290,000 workers, occurred in the first 3 months of the year. The time lost in establishments directly affected (3,330,000 man-days) was less than one-sixteenth as great as in the first quarter of 1946, when the large steel, electrical, meat packing, and automotive strikes were in effect.

*Stoppages in March.*—The number of new stoppages in March increased to 325 from the 290 recorded for January and February. Idleness resulting from labor-management disputes in March was estimated at 850,000 man-days—the lowest for any month since VJ-day. Including stoppages which began in earlier months, a total of 500 disputes, involving 160,000 workers, were in effect during some part of March.

*Work stoppages in the first quarter of 1947 with comparable figures for earlier periods*<sup>1</sup>

Period	Work stoppages beginning in period		Man-days idle (all stoppages)	
	Number	Workers involved	Number	Percent of estimated working time (all industries)
March 1947 <sup>2</sup> .....	325	100,000	850,000	0.1
February 1947 <sup>2</sup> .....	290	90,000	1,230,000	.2
January 1947 <sup>2</sup> .....	290	100,000	1,250,000	.2
March 1946.....	440	147,000	13,800,000	2.3
1st quarter, 1947 <sup>2</sup> .....	905	290,000	3,330,000	.2
1st quarter, 1946.....	1,067	1,650,000	56,400,000	3.2
1st quarter, 1945.....	895	355,000	1,360,000	.1
1st quarter, 1935-39.....	644	235,000	3,240,000	-----

<sup>1</sup> All known work stoppages, arising out of labor-management disputes, involving six or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

<sup>2</sup> Preliminary estimates.

## Activities of the United States Conciliation Service, March 1947

DURING MARCH 1947, the Conciliation Service terminated 1,070 cases, including 176 work stoppages. This was a somewhat larger number than had been closed during February when only 924 cases were closed. Although the total number of cases closed represents a 15.8 percent increase over the previous month, the number of strikes settled during March represented a 23.1 percent increase over the number settled in the previous month.

The larger number of work stoppages in March over February was to be anticipated in view of the traditionally larger number of contracts which reopen in the spring months. Despite an increase in March, the number of assignments of United States Commissioners of Conciliation to strikes so far this year is far smaller than the number made last year during a comparable period. Although a 14.3 percent increase in 30-day strike notices occurred in the period from January 1 through March 31, 1947, compared with the same period in 1946, new assignments to strikes were down 32.9 percent in the first 3 months of 1947 compared with the same period last year.

*Cases closed by the U. S. Conciliation Service in March 1947 by type of situation and type of disposition*

	Total		Work stoppages		Threatened work stoppages		Controversies		Other situations	
	Cases	Workers	Cases	Workers	Cases	Workers	Cases	Workers	Cases	Workers
All cases .....	1,251	424,346	176	61,283	534	226,309	360	88,063	181	48,691
Agreement of the parties .....	891	329,034	140	55,746	479	216,557	272	56,731	0	-----
Dispute called off .....	56	7,826	10	1,064	18	5,258	28	1,504	0	-----
Unable to adjust .....	14	1,331	7	970	3	145	4	216	0	-----
Referred to NLRB and other agencies .....	65	25,903	12	3,006	25	3,660	28	19,228	0	-----
Referred to arbitration .....	44	11,561	7	497	9	680	28	10,384	0	-----
Consent elections held and union memberships verified .....	0	0	-----	-----	-----	-----	-----	-----	-----	-----
Decisions rendered in arbitration .....	<sup>1</sup> 58	21,827	-----	-----	-----	-----	-----	-----	58	21,827
Technical services completed .....	15	4,485	-----	-----	-----	-----	-----	-----	15	4,485
Miscellaneous services .....	108	22,379	-----	-----	-----	-----	-----	-----	108	22,379

<sup>1</sup> This figure includes one arbitration case in which a settlement was reached by the parties before an arbitration decision could be rendered.

# Labor Laws and Decisions

## Federal Legislation on Labor-Management Disputes

FEDERAL STATUTES providing for the settlement of labor-management disputes were first enacted in the late nineteenth century, to insure industrial peace in operation of the country's railroad systems, the uninterrupted service of which vitally concerns the public. This early legislation was amended and extended through succeeding decades down to recent years. In the meantime, legislative action was taken to define unfair labor practices and state the obligations and rights of organized workers as a whole, and to protect the bargaining rights of all groups. Needs during the periods of two World Wars led to establishment of temporary public machinery for the compulsory settlement of disputes and for seizure and governmental operation of plants, if necessary, when the public interest was threatened by a stoppage of work.

In this article, two résumés are given, the first covering the various Federal measures affecting industrial relations on railroads, the second, those which affect workers in general.

### *Laws Affecting Railroad Workers*

The railroad industry, more than any other one field of industrial activity, served as a proving ground in the determination of fair and effective methods for the promotion of stable relations between workers and management. The Railway Labor Act as amended in 1934, which provides a method agreed upon by organizations of both employers and employees for the settlement of disputes, was the outgrowth of efforts which began nearly a half century earlier.

#### LAW OF 1888

As early as October 1, 1888, a Federal act (25 U. S. Stat. L. 501)<sup>1</sup> provided for arbitration of disputes between railroad employees and their employers which affected "transportation of property or passengers." Arbitration could be resorted to only by agreement of the two parties to the dispute, one member of the board to be

<sup>1</sup> For discussion of this law and the Erdman and Newlands laws, see Monthly Labor Review, July 1920 (p. 26).



appointed by each of the parties and the two so appointed to select a third. Their decision was to be publicly announced and a copy was to be filed with the United States Commissioner of Labor. No provision was made for enforcement.

The act also provided for appointment by the President of the United States of two commissioners, who, together with the Commissioner of Labor, should constitute a temporary commission for investigation and report to the President and Congress concerning a controversy not settled by other means.

The arbitration provisions of this law were never utilized, however, and the one investigating commission that was appointed under its provisions—in the Pullman strike of 1894—did not make a report until several months after its appointment (and 3 months after the strike leaders had been imprisoned for contempt in disobeying a court injunction). The report recommended establishment by law of a permanent strike commission with "duties and powers of investigation and recommendation as to disputes between railroads and their employees similar to those vested in the Interstate Commerce Commission as to rates, etc.," and, further, that "power be given to the United States courts to compel railroads to obey the decisions of the commission".<sup>2</sup> The law which was enacted several years later did not follow these suggestions, but did provide that arbitration decisions should be binding.

#### ERDMAN ACT

The law enacted on June 1, 1898 (30 U. S. Stat. L. 424), generally referred to as the Erdman Act, repealed the law of 1888 and provided for mediation in railroad controversies by the Chairman of the Interstate Commerce Commission and the Commissioner of Labor, after request for such mediation had been made by either party to the dispute. The ex officio body of two members thus created by law was the first permanent Federal agency empowered to deal with industrial disputes.

If mediation failed to settle the controversy, a board of arbitration was to be appointed, to consist of three members, one to be chosen by the railroads and one by the employees' labor organization (or, if they had no labor organization, through election by the employees), the third to be chosen by the other two members. The decision of the arbitration board was to be binding, and for 3 months thereafter, the employer-employee relationship could not be terminated by either party because of dissatisfaction with the award, except after 30 days' notice.

<sup>2</sup> U. S. Bureau of Labor Bulletin No. 98, January 1912 (p. 28)

The mediation provisions of this act applied to interstate common carriers by railroad, but only to those employees actually engaged in train operation and train service, the scope being therefore limited to controversies involving engineers, firemen, conductors, trainmen, switchmen, and telegraphers. In practice, however, the cases submitted to mediation sometimes also involved employees not covered in the letter of the act.

A section of this law forbidding any act on the part of an employer prohibiting any person from employment because of membership in a labor union was declared unconstitutional by the United States Supreme Court in 1908. By this decision,<sup>3</sup> agreements referred to as "yellow dog contracts" which prohibit union membership, were upheld. However, in 1932, a provision made part of the Anti-injunction (Norris-LaGuardia) Act, protecting employees and employers alike in their right to belong to organizations in their respective classes, again prohibited such contracts.

#### NEWLANDS ACT

Mediation in railroad disputes rose in importance under the Newlands Act (38 U. S. Stat. L. 103)<sup>4</sup> passed on July 15, 1913, which repealed the law of 1898. The 1913 act provided for a United States Board of Mediation and Conciliation, to consist of a Commissioner of Mediation and Conciliation and two other members, appointed by the President with advice and consent of the Senate. A controversy which could not be settled by mediation and conciliation could be submitted to a board of arbitration, to consist of six members (or three if the parties to the controversy so stipulated), one-third of the number to be chosen by each of the parties, and the remaining third, within a specified period, by the members already chosen. If no choice was made within the time specified, the United States Board of Mediation and Conciliation was to appoint the remaining third of the members.

The provisions of this act, like those of the Erdman Act, applied to controversies concerning railroads and those classes of their employees actually engaged in train operation and train service.

The Newlands Act remained in force until it was repealed by the Railway Labor Act of 1926. A greater number of disputes were settled under its provisions than under preceding laws. In the period during and after World War I, however, use of its machinery was limited to a considerable extent by passage of the wartime Federal Control Act and the Transportation Act of 1920, each of which provided a more complex method for adjustment of disputes than had been established by earlier laws.

<sup>3</sup> *Adair v. United States*, 208 U. S. 161. (For discussion see *Monthly Labor Review*, July 1932, p. 84.)

<sup>4</sup> See *Monthly Labor Review*, April 1920 (p. 50) and July 1920 (p. 26).

## GOVERNMENT CONTROL OF RAILROADS IN WORLD WAR I

On March 21, 1918, the Federal Control Act (40 U. S. Stat. L. 451) was passed, to provide for Government operation of the railways during the period of the war and not to exceed 21 months after exchange of ratification of the treaty of peace. Under this law, machinery was provided for settlement of all controversies which could not be adjusted promptly by the parties concerned.<sup>5</sup> Three special boards of adjustment were created by the Railroad Administration, each handling controversies concerning a different section of the organized railroad workers. A series of orders worked out the composition and prescribed the functions of these boards.

To provide methods of handling controversies involving the unorganized employees, an Assistant Director General of Railroads was appointed, who performed for those workers the functions handled for organized workers by the railroad boards of adjustment.

## TRANSPORTATION ACT OF 1920

The Transportation Act, approved on February 28, 1920 (41 U. S. Stat. L. 456) provided for termination of Federal control on March 1, 1920, and for establishment of permanent machinery for the handling of labor disputes. The adjustment boards feature, which had formed such an important part of the wartime control system, was carried over into the 1920 law; it, however, specified that such boards could be formed by agreement between carriers and their employees, but made no stipulation as to the number of boards or their composition (whereas the wartime orders had provided for three railroad labor adjustment boards). A board in this category had power to take jurisdiction over any dispute "likely substantially to interrupt commerce," which involved only grievances, rules, or working conditions. Such action could be instituted upon the board's own motion, upon application by a carrier or an employees' organization, upon the written petition of not less than 100 unorganized employees, or upon request of the Railroad Labor Board, described below.

The act also provided an agency to receive appeals from the adjustment boards, by creation of the Railroad Labor Board. Nine members, appointed by the President with advice and consent of the Senate, formed this board, three members representing the public, three representing the employees and subordinate officials and chosen from lists of nominees offered by the employees, and three, chosen in like manner, representing the carriers. The Railroad Labor Board had authority to hear and decide upon disputes referred to it

<sup>5</sup> For discussion of this act and the Transportation Act of 1920, see Monthly Labor Review of April 1920 (p. 50) and July 1920 (p. 26).

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by appeal from the labor adjustment boards. It had, in addition, the exclusive right to pass upon disputes involving wages or salaries, either on its own motion or on petition of the carrier or of organized or unorganized employees.

No enforcement method was provided, however, to back the authority of the Railroad Labor Board, and certain carriers and some of the employees' organizations failed to abide by its decisions. Under the law enacted in 1926, the Railroad Labor Board was supplanted by the Board of Mediation, which operated under different and more effective machinery. No provision had been made in the 1920 law for the use of mediation, although that method had been tried out and found effective under the Newlands Act of 1913. (The Newlands Act was still in effect, and was not repealed until 1926.)

#### RAILWAY LABOR ACT OF 1926, AMENDED IN 1934

The Railway Labor Act of May 20, 1926 (44 U. S. Stat. L. 577), as amended by an act of June 21, 1934 (48 U. S. Stat. L. 1185), is based on a formula which was agreed upon by representatives of the carriers and of the employees' unions.<sup>6</sup> Under this law, the two parties, employees and employers, jointly, (1) are under obligation to enter into written agreements concerning rules, pay rates, and working conditions; (2) must follow prescribed procedures if there is a dispute, in an effort to arrive at settlement, before engaging in a strike or a lock-out.

The 1926 act provided for establishment of agencies of four kinds to deal with settlement of disputes: Boards of adjustment, to be created by agreement between the parties; a Board of Mediation, the five members of which were to be appointed by the President with the advice and consent of the Senate; boards of arbitration to be created by agreement of the parties; and emergency boards to be appointed by the President in specific cases, to make investigation and reports.

The 1934 act enlarged the provisions governing the designation of representatives and the right of employees to organize and bargain collectively through representatives of their own choosing. It established a National Railroad Adjustment Board, which was given powers to impose penalties upon either party for refusing to abide by the Board's rules or decisions. Determination of disputes and grievances arising from interpretation or application of the provisions of agreements is the especial province of the Railroad Adjustment Board.

The five-member Board of Mediation created under the 1926 act was abolished by the 1934 act, which established the National Media-

<sup>6</sup> See Monthly Labor Review of June 1926 (p. 32), April 1929 (p. 56), August 1934 (p. 353), and December 1940 (p. 1430).

tion Board of three members. The main functions of this Board are mediation of disputes on wages, rules, and working conditions, and, in representation cases, the determining of bargaining units and the conducting of elections.

Provision was also made in the 1934 act for appointment of boards of arbitration and emergency boards when occasion should require.

The Railway Labor Act was again amended in 1936, to include in its coverage common carriers by air engaged in interstate or foreign commerce.<sup>7</sup>

#### EMERGENCY RAILROAD TRANSPORTATION ACT

A law of June 16, 1933 (48 U. S. Stat. L. 211),<sup>8</sup> designed to relieve the national transportation emergency then existing, created the temporary office of Federal Coordinator of Transportation "to encourage and promote or require action on the part of the carriers to avoid unnecessary duplication of service and facilities." This measure—the Emergency Railroad Transportation Act—provided for maintenance of action in compliance with requirements of the Railway Labor Act and for establishment by the Coordinator of regional boards of adjustment when necessary to settle disputes between the carriers and their employees. The Federal Coordinator of Transportation completed his work and the office ceased to exist on June 17, 1936.

#### NATIONAL RAILWAY LABOR PANEL—WORLD WAR II

On May 21, 1942, the President, by Executive order,<sup>9</sup> provided for creation of a National Railway Labor Panel of nine members. The panel was empowered to appoint, in certain cases, three of its members to serve as an emergency board to investigate for report to the President, disputes not otherwise settled under provisions of the Railway Labor Act and not referable to the National Railroad Adjustment Board, which threatened interruption to commerce and interference with the prosecution of the war. As this panel was appointed to serve for the duration of the war and for 6 months thereafter, the date of expiration is June 30, 1947.

#### *Laws Affecting Workers in General*

The measures by which the Federal Government has sought to promote stability in relations between labor and management in general, have included both establishment of Federal adjustment

<sup>7</sup> See Monthly Labor Review, August 1936 (p. 374).

<sup>8</sup> See Monthly Labor Review, August 1934 (p. 352).

<sup>9</sup> See Monthly Labor Review, July 1942 (p. 92).

agencies and enactment of laws restricting certain practices and specifying methods and procedures to be used in arriving at working agreements and settlement of disputes. Practices held to be unfair were restricted by such laws as the Clayton Act, the Norris-LaGuardia Act, the National Labor Relations Act, and the Anti-strikebreaking Act. Constructive provisions for the establishment of working machinery jointly by labor and management which were temporarily provided by the National Industrial Recovery Act, were embodied in the National Labor Relations Act and were recognized by the Fair Labor Standards Act. The necessity, during each of the two World Wars, of avoiding disputes which would impede the war effort, occasioned the passage of emergency laws and the setting up of wartime boards.

#### ESTABLISHMENT OF U. S. DEPARTMENT OF LABOR

A Bureau of Labor, of which the Commissioner of Labor was the chief officer, was established in 1885 in the United States Department of the Interior, under a law of June 27, 1884 (23 U. S. Stat. L. 60).<sup>10</sup> An independent Department of Labor was created by a law of June 13, 1888 (25 U. S. Stat. L. 182), to which the Bureau of Labor was transferred. The Department of Labor was again made a Bureau of Labor, as part of a newly created Department of Labor and Commerce, by law of February 14, 1903 (32 U. S. Stat. L. 825).

Cabinet status was given to a separate Department of Labor which was established by a law of March 4, 1913 (37 U. S. Stat. L. 736). The Bureau of Labor, the function of which, from its creation in 1885, had been to collect and furnish labor statistics, was made a part of the Department of Labor and given the name of Bureau of Labor Statistics. The Department of Labor was given additional functions in connection with the promotion of the interests of the Nation's wage earners.

The Secretary of the Department was given power "to appoint commissioners of conciliation in labor disputes." In 1918, a separate division, the Conciliation Service, was established in the Department under a director of conciliation, its objectives being the promotion and maintenance of industrial peace.<sup>11</sup> This agency serves as a mediator on request of the parties to a controversy, cooperates with workers and employers in interpreting agreements, and acts as a consultant service when called upon to help solve problems.

<sup>10</sup> U. S. Bureau of Labor Statistics Bulletin No. 319: The Bureau of Labor Statistics, United States Department of Labor. Washington, 1922.

<sup>11</sup> U. S. Department of Labor. Labor Information Bulletin, Washington, D. C., February 1938.



## CLAYTON ACT

The Clayton Act (38 U. S. Stat. L. 730), which was passed in 1914,<sup>12</sup> provided specifically for exemption of labor organizations from provisions of the antitrust<sup>13</sup> laws, in the following language:

SEC. 6. \* \* \* Nothing contained in the antitrust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purposes of mutual help, and not having capital stock or conducted for profit, or to forbid or restrain individual members of such organizations from lawfully carrying out the legitimate objects thereof; nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade, under the antitrust laws.

SEC. 20. [Restrictions on issue.] That no restraining order or injunction shall be granted by any court of the United States, or a judge or the judges thereof, in any case between an employer and employees \* \* \* involving, or growing out of, a dispute concerning terms or conditions of employment, unless necessary to prevent irreparable injury to property, or to a property right, of the party making the application, for which injury there is no adequate remedy at law \* \* \*.

And no such restraining order or injunction shall prohibit any person or persons, whether singly or in concert, from terminating any relation of employment, or from ceasing to perform any work or labor, or from recommending, advising, or persuading others by peaceful means so to do; or from attending at any place where any such person or persons may lawfully be, for the purpose of peacefully obtaining or communicating information, or from peacefully persuading any person to work or to abstain from working; or from ceasing to patronize or to employ any party to such dispute, or from recommending, advising, or persuading others by peaceful and lawful means so to do; or from paying or giving to, or withholding from, any person engaged in such dispute, any strike benefits or other moneys or things of value; or from peaceably assembling in a lawful manner, and for lawful purposes; or from doing any act or thing which might lawfully be done in the absence of such dispute by any party thereto; nor shall any of the acts specified in this paragraph be considered or held to be violations of any law of the United States.

The constitutionality of the Clayton Act was upheld by the United States Supreme Court. However, in an opinion handed down in a case involving the granting of an injunction in restraint of a secondary boycott to compel a manufacturer of printing presses to unionize his factory, the Court stated:

\* \* \* the emphasis placed on the words "lawful" and "lawfully," "peaceful" and "peacefully," and the references to the dispute and the parties to it, strongly rebut a legislative intent to confer a general immunity for conduct violative of the antitrust laws, or otherwise unlawful.<sup>14</sup>

<sup>12</sup> See Monthly Labor Review, July 1932 (p. 67).

<sup>13</sup> The Sherman Antitrust Act was passed on July 2, 1890 (26 U. S. Stat. L. 209). It provided, among other things, that "any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this act may sue \* \* \* and shall recover threefold the damages by him sustained \* \* \*." Under this provision, a hat manufacturer of Danbury, Conn., recovered, in 1908, triple damages for losses due to a boycott of his goods in an interstate shipment (*Loewe v. Lawlor*, 208 U. S. 274). After this decision, agitation had begun for a remedy to the effects of the law on labor.

<sup>14</sup> *Duplex Co. v. Deering* (1921) (254 U. S. 443, 473). For discussion, see Monthly Labor Review, July 1932 (pp. 68-70).

A belief on the part of labor that the provisions of the Clayton Act had not been construed broadly enough in this and other decisions to cover the general situation arising out of labor disputes brought about agitation for a Federal anti-injunction law, which was enacted nearly 2 decades after passage of the Clayton Act.

#### LABOR BOARD OF WORLD WAR I

On April 8, 1918, a National War Labor Board<sup>15</sup> of 12 members was created by proclamation of the President "to settle by mediation and conciliation controversies arising between employers and workers in fields of production necessary for the effective conduct of the war \* \* \*." The Board was directed to "refuse to take cognizance of a controversy between employers and workers \* \* \* where there is by agreement or Federal law a means of settlement which has not been invoked."

As reported by the Board at the end of the 13 months of its activities (April 30, 1918, to May 31, 1919), it "developed by the force of circumstances into a supreme court of industry." The Board received 1,245 complaints, 193 of these jointly submitted by employers and employees, the remainder submitted by groups of employees, by employers' associations, or by reference or appeal from other agencies. Of these cases, 164 were referred to the Conciliation Service of the United States Department of Labor and 151 to other agencies, 391 were dismissed, and in 462, awards and findings were made by the Board.

The work of this World War I National War Labor Board was of importance to the cause of organized labor because it brought about an increase in the use of collective bargaining. The report stated:

The industrial awards \* \* \* presented a bewildering variety of conditions, and, \* \* \* in many cases, necessitated the installation of elaborate machinery for collective bargaining. A notable instance of this is the Bridgeport case, where over 60 establishments, employing 60,000 persons, were involved. It is of much interest to note that the system of department and works committees established under this award has been accepted by both parties as a permanent institution.

Another striking item in the history of the administrative work was the statement of officials of the Corn Products Refining Co. \* \* \* to the administrator of the Board, that the expense of the award to the company, amounting to a million dollars or more, was more than compensated for by the improved classification of occupations worked out by the Board and its examiners and by the greater security of industrial relations secured by the award.

<sup>15</sup> See Monthly Labor Review, May 1918 (p. 54), August 1919 (p. 262).

## ANTI-LABOR INJUNCTIONS AND ANTI-UNION CONTRACTS OUTLAWED

The Anti-injunction (Norris-LaGuardia) Act of March 23, 1932, (47 U. S. Stat. L. 70)<sup>16</sup> deals with a subject which had "held the attention of the courts and the public generally for more than a quarter of a century." The law, in brief (1) prohibits issuance by any Federal court of an injunction in a case involving or growing out of a labor dispute, except in accordance with provisions of the act; (2) declares public policy of the United States in regard to labor disputes, and assures the employee's right to collective bargaining; (3) outlaws anti-union contracts; (4) specifies causes which cannot be made grounds for issuance of injunctions; and (5) specifies certain conditions under which injunctions may be issued and the required procedure in such cases.

*Anti-union contracts.*—Under the act anti-union contracts are declared to be against public policy and not enforceable in any United States court, prohibiting specifically any undertaking or promise made, "whether written or oral, express or implied" in any contract of employment, whereby—

(a) Either party \* \* \* undertakes or promises not to join, become, or remain a member of any labor organization or of any employer organization; or

(b) Either party \* \* \* undertakes or promises that he will withdraw from an employment relation in the event that he joins, becomes, or remains a member of any labor organization or of any employer organization.

## NATIONAL INDUSTRIAL RECOVERY ACT

Soon after enactment of the anti-injunction law, there followed a series of Government measures designed to facilitate the Nation's economic recovery, which gave a great impetus to both organization of labor and the use of collective bargaining. The first of these was the National Industrial Recovery Act, passed on June 16, 1933 (48 U. S. Stat. L. 195).<sup>17</sup> This act provided for promotion of cooperative action among trade groups and between labor and management, and for elimination of unfair competitive practices between establishments, a principal objective being economic recovery from the depression which had begun more than 3 years before. It prescribed that every code of fair competition (a form of code specified by the act to be generally adopted by employers in a given industry) must contain the following conditions:

(1) That employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activ-

<sup>16</sup> See Monthly Labor Review, July 1932 (p. 66).

<sup>17</sup> See Monthly Labor Review, July 1933 (p. 74).



ities for the purpose of collective bargaining or other mutual aid or protection; (2) that no employee and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing, or assisting a labor organization of his own choosing; and (3) that employers shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment, approved or prescribed by the President.

The law further stipulated that the President should, so far as practicable, afford to employers and employees every opportunity "to establish by mutual agreement" the standards as to maximum hours, minimum rates of pay, and other conditions of employment. The standards so established, when approved, were to have the same effect as an approved code of fair competition.

The portion of the law containing these provisions was to expire 2 years after enactment, or on June 16, 1935. (As shown later, the code-making provisions of the NIRA were declared unconstitutional by the Supreme Court, shortly before this period expired.)

In July 1933, within the first few weeks after passage of the NIRA, the President issued a temporary schedule of minimum wages and maximum weekly hours, pending the drafting of regular codes for particular industries. This was in the form of a contract designated "The President's Reemployment Agreement," a copy of which was sent for signature to any employer volunteering to cooperate in the movement.

On signing the President's Reemployment Agreement, popularly referred to as the "blanket code,"<sup>18</sup> the employer received posters to be displayed in evidence of his membership in the National Recovery Administration (the agency established to administer provisions of the NIRA). Insignia to be used on goods produced or handled were also furnished to members by the NRA.

During the effectiveness of the NIRA, two labor boards in succession were established to aid in administration of its provisions, as shown below.

*National Labor Board.*—On August 5, 1933, a National Labor Board,<sup>19</sup> consisting of seven members, was created to "consider, adjust, and settle differences and controversies" that might arise "through differing interpretations of the President's Reemployment Agreement." The Board was appointed on the advice of the industrial and labor advisory committees of the National Recovery Administration. On February 1, 1934, this board was given, by Executive order, authority to supervise, on request, elections among employees or any specific group of employees of any employer subject to a code. The objective of such elections was the selection of representatives for the purpose of collective bargaining or other mutual aid or pro-

<sup>18</sup> See Monthly Labor Review, August 1933 (p. 262).

<sup>19</sup> See Monthly Labor Review, September 1933 (p. 552) and March 1934 (p. 528).

tection in exercise of the rights assured to the employees by provisions of the NIRA. The Board functioned for nearly a year, and was then replaced by the National Labor Relations Board, established by congressional action.

*National Labor Relations Board.*—By joint congressional resolution approved June 19, 1934 (48 U. S. Stat. L. 1183), the President was authorized to establish a board to investigate issues in controversy under the labor provisions of the NIRA.<sup>20</sup> This board, according to the enabling resolution, was to be empowered, "when it shall appear in the public interest, to order and conduct an election by a secret ballot of any of the employees of any employer, to determine by what person or persons or organization they desire to be represented \* \* \*." The resolution also declared the right of employees to strike or engage in other concerted activities. The President under this authority, by Executive Order of June 29, 1934, created the National Labor Relations Board, composed of three members, which on July 9, 1934, took over the functions of the National Labor Board.

The National Labor Relations Board, in addition to fuller powers than had been given the National Labor Board in regard to employee elections, was given power to hold hearings and make findings of fact regarding complaints as to discrimination against or discharge of employees, or other alleged violations of the labor provisions of the NIRA; to prescribe certain rules and regulations, and to recommend to the President such rules and regulations concerning labor provisions as he was authorized by the NIRA to prescribe; and upon request of the parties to a labor dispute, to act as a board of voluntary arbitration or to select a person or agency for voluntary arbitration.

On June 15, 1935, the President by Executive order continued the National Labor Relations Board to July 1, 1935; and on June 29, again continued it to August 1, 1935.<sup>21</sup>

*Supreme Court decision concerning NIRA.*—On May 27, 1935, the provisions of the NIRA relative to making codes of fair competition were declared unconstitutional by the United States Supreme Court.<sup>22</sup> This was less than 3 weeks before the end of the period set by the law during which the portion containing those provisions was to continue in effect.

*Continuation of certain provisions of NIRA.*—On June 14, 1935 (2 days before the date set by the National Industrial Recovery Act for expiration of its title I, embodying the code-making provisions), a joint resolution of Congress (49 U. S. Stat. L. 375), was approved, which provided that the date of expiration of title I of the NIRA

<sup>20</sup> See Monthly Labor Review, August 1934 (pp. 316, 367).

<sup>21</sup> See Monthly Labor Review, August 1935 (p. 356).

<sup>22</sup> See Monthly Labor Review, June 1935 (p. 1466).

should be April 1, 1936.<sup>23</sup> The same resolution repealed the provisions of title I, which had given the President power to approve or prescribe codes of fair competition—except that a clause which had given exemption for codes and agreements under the title from provisions of the United States antitrust laws was to be continued, only with regard to agreements and action thereunder putting into effect requirements as to minimum wages, maximum hours, and prohibition of child labor, and such provisions as prohibited “unfair competitive practices which offend against existing law.”

#### NATIONAL LABOR RELATIONS ACT

On July 5, 1935 (a few weeks after annulment of the code-making provisions of the National Industrial Recovery Act), the President signed an act (49 U. S. Stat. L. 449) designed to “diminish the causes of labor disputes burdening or obstructing interstate and foreign commerce.”<sup>24</sup>

This law, known as the National Labor Relations Act and also as the Wagner Act, provided for a recreated National Labor Relations Board to consist of three members appointed by the President. It provided that employees should have the right to self-organization, the right to bargain collectively through representatives of their own choosing, and the right to engage in concerted activities for the purpose of collective bargaining or other mutual aid or protection.

Unfair labor practices on the part of employers were stated in section 8 of the act to be:

(1) To interfere with, restrain, or coerce employees in the exercise of the rights guaranteed in section 7.

(2) To dominate or interfere with the formation or administration of any labor organization or contribute financial or other support to it: Provided, that subject to rules and regulations made and published by the Board \* \* \*, an employer shall not be prohibited from permitting employees to confer with him during working hours without loss of time or pay.

(3) By discrimination in regard to hire or tenure of employment or any term or condition of employment to encourage or discourage membership in any labor organization: Provided, that nothing in this act, or in the National Industrial Recovery Act (U. S. C., Supp. VII, title 15, secs. 701-712), as amended from time to time, or in any code or agreement approved or prescribed thereunder, or in any other statute of the United States, shall preclude an employer from making an agreement with a labor organization (not established, maintained, or assisted by any action defined in this act as an unfair labor practice) to require as a condition of employment membership therein, if such labor organization is the representative of the employees as provided in section 9 (a), in the appropriate collective-bargaining unit covered by such agreement when made.

(4) To discharge or otherwise discriminate against an employee because he has filed charges or given testimony under this act.

<sup>23</sup> See Monthly Labor Review, August 1935 (p. 354).

<sup>24</sup> See Monthly Labor Review, August 1935 (p. 369).



(5) To refuse to bargain collectively with the representatives of his employees, subject to the provisions of section 9 (a).

Provision was made for proceedings by the National Labor Relations Board "to prevent any person from engaging in any unfair labor practice \* \* \* affecting commerce."

Under the act, the Board may petition the appropriate court of the United States for the enforcement of an order, and in so appealing, shall file a transcript of the entire record in the proceeding. Judgment by a court shall be final, except that it shall be subject, upon appeal, to review by an appropriate appeals court and by the United States Supreme Court upon writ of certiorari or certification, as provided in the Judicial Code. Persons aggrieved by final orders of the Board may in like manner appeal to the appropriate court of the United States.

#### ACT PROHIBITING STRIKEBREAKING

On June 24, 1936, a law was passed (49 U. S. Stat. L. 1899), which declared it to be unlawful to transport, or to aid or abet in transporting, strikebreakers in interstate or foreign commerce.<sup>25</sup> Persons characterized as strikebreakers were those intended for use in obstructing or interfering in any manner with peaceful picketing during labor controversies affecting wages, hours, or conditions of labor, or the right of organization for the purpose of collective bargaining. The penalty for violation was specified as a fine not to exceed \$5,000 or imprisonment not to exceed 2 years, or both.

In an amendment of June 29, 1938 (52 U. S. Stat. L. 1242),<sup>26</sup> the strikebreaking activity was specified as "obstructing or interfering by force or threats," and the prohibition was extended to include anyone who knowingly travels in interstate or foreign commerce for any of the purposes enumerated. The amendment states that the provisions shall not apply to common carriers.

#### FAIR LABOR STANDARDS ACT OF 1938

On June 25, 1938, the Fair Labor Standards Act (52 U. S. Stat. L. 1060), often referred to as the Wage and Hour Law, was approved, to become effective October 24, 1938.<sup>26</sup> This act principally concerns minimum wage, maximum hours of work, and restrictions on child labor, but its provisions specifically recognize collective bargaining, collective agreements, and the use of tripartite industry committees, all of which are of importance in the machinery designed to promote labor-management accord.

<sup>25</sup> Monthly Labor Review, August 1936 (p. 373), and September 1938 (p. 561).

<sup>26</sup> See Monthly Labor Review July 1938 (p. 107).

## WORLD WAR II PERIOD

While no permanent industrial relations legislation was enacted during the years 1939-46, labor-management relations assumed outstanding importance during the period of World War II, and several measures taken by the Federal Government were of great significance. Even before hostilities commenced, in 1941, a Government board was established for mediation of disputes. A month after the war began, a National War Labor Board was established, which replaced the mediation board and was given broader powers. To facilitate settlement of disputes between railroad workers and management, the National Railway Labor Panel was appointed. The War Labor Disputes Act was passed, giving the Government emergency powers to prevent disastrous wartime stoppages of work.

These measures, with the exception of the National Railway Labor Panel, which is included under the section covering railroad legislation, are briefly reviewed.

*National Defense Mediation Board*

In March 1941, some 8 months before the United States declared war, President Roosevelt, by Executive order, created the National Defense Mediation Board, to be composed of representatives of labor, employers, and the public.<sup>27</sup> This Board was authorized to assist the parties to disputes in negotiating settlements; to provide means for voluntary arbitration; to investigate issues, conduct hearings, and make recommendations to the parties, and, if it judged such action advisable, to make findings and recommendations public; to request expedition of determination by the National Labor Relations Board of the appropriate unit for representation of workers, when this was a subject of controversy; and to plan with the parties for avoidance of future controversies.

Late in November 1941, a disagreement concerning a decision by the Board in the "captive mine" union-shop dispute led to withdrawal of part of the labor membership.

*National War Labor Board*

On January 12, 1942, the President, by Executive order, established the National War Labor Board, to take the place of the National Defense Mediation Board.<sup>28</sup> The new Board, composed of 12 members—4 each to represent labor, employers, and the public—was given power to determine a dispute in which other procedures for adjustment or settlement had been exhausted, and which might interrupt work that contributed to the effective prosecution of the

<sup>27</sup> See Monthly Labor Review, May 1941 (p. 1137), and February 1942 (p. 427).

<sup>28</sup> See Monthly Labor Review, March 1942 (p. 696), and May 1945 (p. 1035).

war. After a dispute had been certified to the Board by the Secretary of Labor, mediation, voluntary arbitration, or arbitration under rules which the Board prescribed, might be used to bring about a settlement.

In October 1942, this board was given authority for carrying out the wage stabilization program provided by the Economic Stabilization Act of that month (56 U. S. Stat. L. 765). Its powers were again enlarged by the War Labor Disputes Act of June 25, 1943.

In the first 3 years of the Board's operation, or to the end of 1944, it received 14,000 dispute cases. Of these, 11,000 had been concluded, as of October 27, 1944. The Board was terminated December 31, 1945, some 4 months after VJ-day.

#### *War Labor Disputes Act*

On June 25, 1943, the War Labor Disputes (Smith-Connally) Act (57 U. S. Stat. L. 163) became law, being passed by Congress over the President's veto.<sup>29</sup> It was to be effective until 6 months after termination of hostilities. It gave the President power to take possession of and operate (for a limited period) plants, mines, and facilities, when he found and proclaimed that a threatened or actual interruption to operation of such plant, mine, or facility existed, because of a strike or other labor disturbance, which would unduly impede or delay the war effort. (These provisions amended and broadened the provisions of the Selective Training and Service Act of 1940, (54 U. S. Stat. L. 885), which had provided for seizure, under certain conditions, of plants manufacturing war materials.)

To "coerce, instigate, induce, conspire with, or encourage any person, to interfere, by lock-out, strike, slow-down, or other interruption, with the operation of such plant, mine, or facility" taken over by the President, or to aid any such action interfering with operation of such an establishment or facility, was by the law constituted an offense punishable by a fine of not more than \$5,000 or imprisonment for not more than 1 year, or both.

The powers and duties of the National War Labor Board in regard to settlement of disputes were enlarged by the War Labor Disputes Act. The Board was given power not only to decide the dispute, but also to "provide by order the wages and hours and all other terms and conditions (customarily included in collective-bargaining agreements) governing the relations between the parties." Such decision was to conform to the provisions of the Fair Labor Standards Act of 1938 as amended, the National Labor Relations Act, the Emergency Price Control Act of 1942 as amended, and the [Stabilization] Act of October 2, 1942, as amended, and to all other applicable provisions

<sup>29</sup> See Monthly Labor Review, August 1943 (p. 305).



of law. Powers granted to the Board did not include any matter within the purview of the Railway Labor Act as amended.

Special provision was made in the War Labor Disputes Act with regard to notification to the Board, by employees of a war contractor, of disputes involving such contractor and employees which threatened to interrupt production.

Another provision banned political contributions by labor organizations in connection with election of a President, Vice-President, or member of Congress.

On December 31, 1946, the President announced the termination of hostilities in World War II as of 12 noon of that date.<sup>30</sup> It had been stipulated in the War Labor Disputes Act that the plant-seizure authority should end with the cessation of hostilities, but that the authority to operate any industry being held at the date of cessation would terminate 6 months later.



### Recent Decisions of Interest to Labor<sup>1</sup>

*SUPREME COURT decision in United Mine Workers case.*<sup>2</sup>—In upholding the contempt citation against the United Mine Workers and its president, the Supreme Court ruled<sup>3</sup> (1) that the provisions of the Norris-LaGuardia and Clayton Acts, which bar Federal courts from issuing injunctions in labor disputes except under specified conditions, are not applicable in a case involving a dispute between the Federal Government and its own employees; (2) that the workers in the Government-seized mines were employees of the United States; (3) that in any event the Federal district court had the authority to issue a restraining order to preserve existing conditions while it was considering its authority to enjoin the union and its leaders, and disobedience of the restraining order is punishable as criminal contempt; and (4) that the fine imposed on the union by the district court was excessive.<sup>4</sup>

<sup>30</sup> See Monthly Labor Review, February 1947, Chronology of Labor Events (p. 356).

<sup>1</sup> Prepared in the Office of the Solicitor, U. S. Department of Labor. The cases covered in this article represent a selection of the significant decisions believed to be of general interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law nor to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

<sup>2</sup> See Monthly Labor Review, February 1947 (p. 271), for a summary of the district court rulings from which the appeal to the Supreme Court was taken.

<sup>3</sup> *United States v. United Mine Workers* (U. S. Sup. Ct. Mar. 6, 1947).

<sup>4</sup> The Supreme Court also ruled on a number of technical issues concerning the lower court's procedure in the contempt trial. The views of the majority as well as the dissenting opinions on these questions are omitted from this summary.

The court was divided, 5 to 4, on the question of the effect of the Clayton and Norris-LaGuardia Acts. The majority, in holding that these statutes did not preclude the issuance of an injunction in this case, relied, first of all, on a rule of statutory interpretation which states that when, as in these statutes, the effect of the law is to curtail pre-existing rights, it will not be applied to the sovereign without express words to that effect. In addition, the majority of the Court relied on the fact that the language of the Norris-LaGuardia Act relates to an economic role ordinarily filled by a private individual or corporation, and not by a sovereign government, and also on the fact that the legislative history of that act appeared to indicate that Congress did not intend that it should apply in a case in which the Federal Government seeks to enjoin its own employees.<sup>5</sup>

Mr. Justice Frankfurter, on the other hand, argued that the Norris-LaGuardia Act limited the jurisdiction of the courts regardless of the nature of the parties. He also contended that the legislative history of the act indicated that Congress did not consider a situation such as that which existed in this case, and that if it was the intention of Congress to exempt the Government from the operation of the statute, such exemption was limited to a case in which there should be a dispute involving employees of a regular Federal agency. Together with Mr. Justice Rutledge, he argued, furthermore, that in the Smith-Connally Act<sup>6</sup> Congress had considered and rejected a proposal to give the Government power to obtain injunctions.<sup>7</sup>

In holding that the miners were employees of the United States, the majority of the Court stated that in enacting the Smith-Connally Act, "Congress intended that by virtue of Government seizure, a mine should become, for purposes of production and operation, a Government facility in as complete a sense as if the Government held full title and ownership." In addition the Court pointed out that the Krug-Lewis agreement covered matters which are normally treated in collective bargaining between employer and employee.

On the question of the union's obligation to obey the restraining order, even though, on review by the Supreme Court, it may have been determined that the court had no authority to grant injunctive relief, the majority ruled that when, as in this case, there was reasonable doubt as to whether the court had jurisdiction, the defendant could not legally disregard the court's efforts to maintain the status quo while the issue was being determined, and that by disregarding

<sup>5</sup> It is to be noted that the Court was careful to point out that its ruling on this question is restricted to a case in which the Federal Government is engaged in a dispute with its own employees, and does not extend to a case in which the United States is attempting to intervene by injunction in a purely private labor dispute.

<sup>6</sup> It was this statute under which the Government seized the coal mines.

<sup>7</sup> Mr. Justice Frankfurter, however, concurred with the majority on the point that the defendants were guilty of criminal contempt for having violated the restraining order.

them he committed criminal contempt. Mr. Justice Rutledge, however, argued in his dissenting opinion that a defendant in disobeying a restraining order under the belief that the court had no jurisdiction should be found in contempt only if, upon appeal, it is determined that the court had jurisdiction.

Although the majority ruled that the union was guilty of criminal contempt, it held that the \$3,500,000 fine was excessive. The Court ordered the union to pay a fine of \$700,000 for its past contempt, and made the remaining \$2,800,000 conditional on its obeying the injunction.

### *National Labor Relations Act*

*Recognition of and bargaining with independent foremen's unions.*—The United States Supreme Court ruled<sup>8</sup> that "foremen are entitled as a class to the rights of self-organization, collective bargaining, and other concerted activities as assured to employees generally by the National Labor Relations Act."

In a case which arose from a refusal by a company to bargain with an independent union of its foremen,<sup>9</sup> the Court ruled that foremen are "employees" within the meaning of the National Labor Relations Act. It rejected the company's contention that foremen fall within the definition of "employer" which includes "any person acting in the interest of an employer directly or indirectly \* \* \*," ruling that this definition was not meant to deny organizational privileges to supervisory employees, but rather to render employers responsible for unfair labor practices performed in their interest.

With respect to the argument advanced by the company that if foremen are permitted to organize they will sometimes be governed by their own interests rather than those of the employer, the Court stated: "There is nothing new in this argument. It is rooted in the misconception that because the employer has the right to wholehearted loyalty in the performance of the contract of employment, the employee does not have the right to protect his independent and adverse interest in the terms of the contract itself and the conditions of work." The Court further ruled that the appropriate bargaining unit of foremen may include foremen with different degrees of responsibility and authority.

In a dissenting opinion, four of the justices argued that the majority opinion created a basic change in industrial philosophy, as a result of which "the basic opposing forces in industry are not management and labor but the operating group on the one hand and the stockholder and bondholder group on the other." They also felt that the legislative

<sup>8</sup> *Packard Motor Car Co. v. National Labor Relations Board* (U. S. Sup. Ct., Mar. 10, 1947).

<sup>9</sup> It should be noted that this case did not involve the question of the membership of supervisory employees in a union of production workers.



history of the National Labor Relations Act failed to disclose any congressional intent to place the administrative machinery and sanctions of the act behind the right of foremen to organize and bargain collectively.

*Discharge for striking against NLRB certification.*—In a recent decision the National Labor Relations Board held <sup>10</sup> that a strike to compel recognition of a striking union, when another union had already been certified as the exclusive bargaining agent, is not protected by the National Labor Relations Act, and the discharge of employees for participating in the strike does not violate the act. In a prior decision upon the same facts, the Board held that this principle was not applicable in that case for the reason that the employer, by agreeing to reinstate the employees, had "condoned" their conduct. In the present case, the Board reversed its prior determination on this point, concluding that in this instance there was no effective condonation, because after the striking union's agreement to discontinue the strike, it had resumed striking for the purpose of compelling the employer to violate his obligation under the Board's certification.

*Discharge for violation of no-strike clause.*—In another decision on an issue similar to the above the Board held <sup>11</sup> that employees who strike in violation of a no-strike clause in a collective bargaining agreement, there being no indication that the strike was caused by an unfair labor practice, are not protected by the act. Upon such facts, the Board ruled that the employer's penalizing of the strikers by discharging some and laying off others did not violate the act.

*Effect of union's refusal to bargain.*—In a recent decision <sup>12</sup> the National Labor Relations Board enunciated the principle that unions must bargain in good faith if a finding of refusal to bargain on the part of the employer is to be made. In this case, involving a strike of newspaper workers, the Board, upon an examination of the history of negotiations, determined that the union "preferred to continue to use its strike weapon until such time as the respondents capitulated to the union's original demands." The Board ruled that, although the act does not impose an affirmative duty to bargain upon labor unions, "a union's refusal to bargain in good faith may remove the possibility of negotiation and thus preclude the existence of a situation in which the employer's own good faith can be tested. If it cannot be tested, its absence can hardly be found."

*Two-year contract as a bar to determination of representatives.*—A 2-year contract which has been in effect for more than 1 year may bar a new determination of representatives even though the customary term of collective-bargaining agreements in the industry is only 1 year.

<sup>10</sup> *In re Thompson Products Inc.* (72 NLRB No. 150, Feb. 21, 1947).

<sup>11</sup> *In re Joseph Dyson & Sons, Inc.* (72 NLRB No. 82, Feb. 7, 1947).

<sup>12</sup> *In re Times Publishing Co.* (72 NLRB No. 128, Feb. 17, 1947).

In so holding, the Board, in a recent case,<sup>13</sup> took occasion to review the problem of existing contracts as a bar to new elections. Originally the Board had held that a 2-year contract could not bar an election after it had run for a year unless such contracts were customary in the industry. Subsequently the Board held that a 2-year contract was presumed to be reasonable and placed the burden upon the petitioning union to show that such agreements were not customary. In the present decision the Board adopted a new position by virtue of which 2-year contracts will preclude new elections until shortly before their termination dates, even when, as was true in this case, such contracts are not customary in the industry.

The Board explained this trend by the fact that, in the early experimental period of the act, it was necessary to emphasize the right of workers to select and change their representatives. At the present time, however, greater emphasis must be placed upon the stability of industrial relations. The Board concluded that refusing to interfere with a 2-year agreement would be in accord with this shift in emphasis without unduly restricting employees in their choice of representatives.

### *Fair Labor Standards Act*

*Railroad trainees not covered.*—In two companion cases,<sup>14</sup> the United States Supreme Court has ruled that persons engaged in a course of practical training on the premises of railroads in order to qualify for various railroad positions, are not "employees" of the railroads within the meaning of the Fair Labor Standards Act.<sup>15</sup> The Court reasoned that section 14 of the act which empowers the Administrator to grant special certificates permitting the employment of learners at less than the statutory minimum wage relates only to learners who are in "employment." As to whether the trainees in question fell within the act's broad definition of "employ"—"suffer or permit to work"—the Court stated that this language "was obviously not intended to stamp all persons as employees who, without any express or implied compensation agreement, might work for their own advantage on the premises of another." The Court, in pointing out that there was no evidence in this case to indicate that the trainee device was used as a technique to evade the statute, stated that it was not ruling upon the law in a case in which such evasion should be attempted.

In a concurring opinion Mr. Justice Jackson preferred to rest the result not on an interpretation of the statute, but upon the fact that, according to the evidence, custom in the industry and the contract

<sup>13</sup> *In re Reed Roller Bit Co.* (72 NLRB No. —, Feb. —, 1947).

<sup>14</sup> *Walling v. Portland Terminal Co.* and *Walling v. Nashville, Chattanooga & St. L. Ry.* (U. S. Sup. Ct., Feb. 17, 1947).

<sup>15</sup> See *Monthly Labor Review*, July 1946 (p. 101) for a summary of the lower court decisions that were affirmed in this case.

between the parties militated against considering the trainees as "employees."

*Other questions of coverage.*—Several recent cases arising in various Federal district courts have involved the issue as to whether the employees in question were covered by the Fair Labor Standards Act, in a variety of circumstances.

A district court in Tennessee decided<sup>16</sup> that the act covers intrastate employees engaged in rendering bookkeeping, clerical, and secretarial services to the employers' customers located within the same State who were engaged in commerce or the production of goods for commerce. The court relied on the principle that "application of the Fair Labor Standards Act depends not upon the nature of the employer's business but upon the character of the employee's activities." The same court reached a like result with regard to employees of a vehicle-rental company engaged intrastate in furnishing and repairing vehicles used in commerce by customers of the employer.<sup>17</sup>

Employees of a company engaged in the production and distribution of cemetery monuments are engaged in commerce and the production of goods for commerce within the meaning of the act, if the company sells a substantial portion of its production out of the State, according to a recent decision of a district court in South Dakota.<sup>18</sup> This decision covered not only the production employees, but also workers engaged in loading and unloading raw materials and finished monuments, as well as those doing secretarial or clerical work pertaining to interstate activities.

*Applicability of various exemptions.*—Four recent decisions in the lower Federal courts considered the applicability of various of the exemptions provided in the Fair Labor Standards Act.

In one New York case<sup>19</sup> the issue concerned the Administrator's regulation which requires, among other things, that an employee be compensated at a rate of not less than \$200 a month in order to come within the scope of the exemption, provided in section 13 (a) (1) of the act, of a person "employed in a bona fide \* \* \* administrative \* \* \* capacity." The question was whether employees who were compensated on an hourly basis, who received but were not guaranteed \$200 a month, and who otherwise qualified as administrative employees, fell within the requirements of the Administrator's regulation. The court held that they did not, on the ground that payment on an hourly basis was not an adequate compliance with the

<sup>16</sup> *Walling v. Mathews Bros.* (U. S. D. C. M. D. Tenn., Dec. 27, 1946).

<sup>17</sup> *Walling v. Mathews Co.* (U. S. D. C. M. D. Tenn., Dec. 27, 1946). See also *Skidmore v. Casole* (C. C. A. 2, Mar. 6, 1947), in which a similar result was reached.

<sup>18</sup> *Walling v. Burke* (U. S. D. C. D. S. D., Jan. 29, 1947).

<sup>19</sup> *Chopard v. May* (U. S. D. C. S. D. N. Y. Jan. 27, 1947).



Administrator's regulation when there was no guaranty of the \$200 minimum monthly salary.

Section 13 (a) (1) of the act also exempts persons employed in a "bona fide \* \* \* professional capacity," and this exemption was held in a recent Minnesota case to be applicable to head nurses in charge of first-aid stations in an ordnance plant, who gave instructions to nurses working under them.<sup>20</sup> The court found that the work of the nurses was "predominately intellectual, and varied in character, requiring the constant exercise of discretion and judgment." In line with the decision noted above, however, this court ruled that the nurses were not exempt from the act during any month in which they were not assured a minimum salary of \$200.

Two Federal district courts reached a like result on the applicability of the exemption provided in section 13 (a) (4) for employees of air carriers which, it was claimed, applied to workers employed by an airline company on an airplane modification project operated for the Government during the war.<sup>21</sup> In both cases the court held that the exemption was not applicable in view of the fact that the modification center was an industrial enterprise separate from the airlines' transportation business. The courts ruled that the air carrier exemption applies only to employees of carriers who are engaged in air transportation activities.

### *Selective Training and Service Act*

*Effect of closed-shop contract on discharge of veteran.*—In the first case in which this issue has been squarely before a Federal district court, it was held<sup>22</sup> that a reinstated veteran who refuses to join a union which has a closed-shop contract with the employer may be lawfully discharged within his first year back on the job. The veteran, prior to his induction, had been permitted to work with a permit card, having been advised of the closed-shop contract and of the fact that he would have to join the union within a specified time. While still in the permit status he was inducted, and upon his discharge he was reinstated in that status. Subsequently, when he was requested to join the union, he refused. The union thereupon demanded that the employer discharge him, and this was done. In holding that the employer had not violated the Selective Training and Service Act, the court stated that the employer's contractual relationships with the union "are superior to any rights which the petitioner may have to reemployment or compensation." In addition, the court relied on the

<sup>20</sup> *Hofer v. Federal Cartridge Corp.* (U. S. D. C. D. Minn. Jan 24, 1947).

<sup>21</sup> *Jackson v. Northwest Airlines Inc.* (U. S. D. C. D. Minn. Jan. 18, 1947) and *Roland v. United Airlines Inc.* (U. S. D. C. N. D. Ill. Feb. 14, 1947).

<sup>22</sup> *Kemp v. Chatillon & Sons* (U. S. D. C. D. N. J. Feb. 7, 1947).

fact that the veteran had reason to know that his continued employment was contingent on his becoming a member of the union.

*Seasonal employment.*—A recent decision <sup>23</sup> held that a veteran who prior to his induction had been employed in a seasonal job is nonetheless entitled to reinstatement if it can be shown that both the employer and the veteran considered him an employee at the time of his induction. The fact that the parties to the employment contract considered the veteran an employee was held to outweigh the fact that the veteran had been inducted during the time of the year when he was employed elsewhere.

### *Anti-Trust Laws*

*Effect of Norris-LaGuardia Act upon union's responsibility for unlawful conspiracy.*—The United States Supreme Court ruled <sup>24</sup> that the Norris-LaGuardia Act limits the extent to which a union and its locals may be liable in a criminal prosecution for the unlawful acts of its officers in a labor dispute.

The unions had entered into agreements with employers and trade associations in the San Francisco Bay area of California which contained a clause providing for refusal to handle or deal with millwork and patterned lumber from establishments that did not "conform to the rates of wages and working conditions" of the agreement. This contract was found by the lower court to have been designed to keep out products not produced in that area, and therefore to constitute a conspiracy in restraint of trade in violation of the Sherman Act.

The Supreme Court, relying on its previous decision in *Allen Bradley Co. v. Local Union No. 3*, <sup>25</sup> held that the Sherman Act is applicable to a conspiracy between a labor union and a business group. However, it reversed the lower court's judgments of conviction against the union, its locals, and the employer, and ordered a new trial to determine the responsibility of the defendants in the light of restrictions contained in section 6 of the Norris-LaGuardia Act. That section provides, in part, that "no association or organization participating or interested in a labor dispute shall be held responsible or liable in any court \* \* \* for the unlawful acts of individual officers, members, or agents except upon clear proof of actual participation in, or actual authorization of such acts, or of ratification of such acts after actual knowledge thereof."

The majority of the Court ruled that section 6 restricts the responsibility or liability in labor disputes of employer or employee associations or their members, even when the officers are acting within the

<sup>23</sup> *United States ex rel. Unruh v. North American Creameries* (U. S. D. C. D. N. D., Feb. 10, 1947).

<sup>24</sup> *United Brotherhood of Carpenters v. United States* (U. S. Sup. Ct. March 10, 1947).

<sup>25</sup> 325 U. S. 797.

scope of their general authority, to those associations or their members who actually participate in the unlawful acts, unless there is clear proof that the specific unlawful act or acts of that general type (1) had been expressly authorized, or (2) followed from a granted authority by the association or nonparticipating member sought to be charged, or (3) were subsequently ratified after actual knowledge of their occurrence. The Court held that the lower tribunal, by not making these distinctions, had been in error. At the same time the Court pointed out that this holding does not permit a union to escape responsibility by issuing standing orders which disavow authority on the part of officers or members to make any agreements in violation of the Sherman Act. Said the Court: "An illustrative but nonrestrictive example might be where there was knowing participation by the union in the operation of the illegal agreement after its execution. And the custom or traditional practice of a particular union can also be a source of actual authorization of an officer to act for and bind the union."

In a dissenting opinion, Mr. Justice Frankfurter viewed section 6 as having been enacted in order to eliminate the possibility of a union's being held liable for the unauthorized acts of members who were not acting with the authority of agents. He felt that it was not intended by insertion of that section to remove the union's liability for violations of the Sherman Act committed by duly authorized agents who were acting within the general scope of their authority, even though they had not been specifically authorized to commit the unlawful acts.

### State Decisions

*Washington: Picketing by minority union.*—The Washington Supreme Court recently held <sup>26</sup> that picketing in a jurisdictional dispute between rival unions does not involve a "labor dispute" within the meaning of the State anti-injunction law, if no members of the picketing union are employed at the picketed company and the other union has been certified as the exclusive bargaining agent of the employees. In upholding an injunction against the pickets, the court stated: "a jurisdictional dispute between rival unions can become a 'labor dispute' provided the union members involved are employees of the same company, and provided further that no exclusive bargaining agency has been set up or provided for. Here, there was no labor dispute."

In addition, the court rejected the contention of the picketing union that, aside from the statute, the picketing was protected by the free speech amendment under the doctrine of *Thornhill v. Alabama*.<sup>27</sup> Relying on the reasoning of the Supreme Court in *Carpenters and*

<sup>26</sup> *Swenson v. Seattle Central Labor Council* (Wash. Sup. Ct. Feb. 19, 1947).

<sup>27</sup> 310 U. S. 88.



*Joiners Union v. Ritters Cafe*,<sup>28</sup> the Washington court held that the picketing in this case went beyond mere persuasion and involved unlawful coercion, and was, therefore, not entitled to constitutional immunity.

*New York and Illinois: Secondary boycotts.*—A recent decision by a lower New York court<sup>29</sup> held that the picketing of dentists by a union of dental laboratory employees in order to induce the dentists to cease dealing with the dental laboratory was an unlawful secondary boycott.

An Illinois court recently considered a case<sup>30</sup> in which a union of teamsters refused to deliver gasoline products to proprietors of gasoline stations who had been requested to become members of the union but refused. The court held that such coercion against independent businessmen who employ no workers constituted an illegal secondary boycott.



### Irish Industrial Relations Act, 1946<sup>1</sup>

UNDER THE PROVISIONS of the Irish Industrial Relations Act, which became effective in September 1946, a new Labor Court was established. Under the law, the Court administers several types of regulation, already in effect, including the registration and enforcement of collective-bargaining agreements, and the determination of minimum wages and conditions of employment by the wage-board method. It also assists in the settlement of industrial and jurisdictional disputes. Provision is made for the continuation and modification of wartime wage control.

All manual and clerical workers, except those employed by central and local governments, are covered by the act. Also excepted are agricultural workers, whose wages and conditions of employment are covered by other legislation. Agricultural workers, however, are covered by the conciliation and investigation provisions.

The Industrial Relations Act is a consolidation and expansion of seven earlier enactments in this field, the oldest of which dates back to 1896. Five of these were originally British acts and were continued under the Irish Free State.

#### *The Labor Court*

The administrative authority established under the act is the Labor Court, appointed by the Minister of Industry and Commerce

<sup>28</sup> 315 U. S. 722.

<sup>29</sup> *Brennan v. Eisen* (N. Y. Sup. Ct. N. Y. County, Jan. 30, 1947).

<sup>30</sup> *Dinoffria v. International Brotherhood of Teamsters* (Ill. App. Ct., Mar. 5, 1947).

<sup>1</sup> *Eire*, Law No. 26 of 1946; U. S. Legation Report, Dublin, October 16, 1946; Round Table (London), September 1946; International Labor Office Studies and Reports D22, *The Minimum Wage*, Geneva, 1939 (pp. 144-150).

and composed of one public, two labor, and two employer representatives. The public representative acts as chairman and serves for a term determined by the Minister; the other members may serve for a maximum of 5 years. The public member has a determining vote if a deadlock occurs. If necessary, the Court may sit in divisions, under the chairman and a deputy chairman. It may appoint conciliation officers. It is given power to compel attendance of witnesses and the submission of evidence, and to take sworn testimony; but it may not disclose confidential information. The Court is also required to report to the Minister on any question concerning employment conditions referred to it.

### *Registration of Collective-Bargaining Agreements*

The Court replaces the Ministry of Commerce and Industry as the agency for registration of collective-bargaining agreements, but it is, as noted, appointed by the Minister. An agreement may be registered on application of either party, with the consent of the other party and the approval of the Court, provided that (1) the essential terms of the agreement are made public and other parties having an interest are allowed to present objections to the Court, (2) the agreement does not unduly restrict the employment of any class of workers nor protect inefficient or costly machinery or methods of work, and (3) a strike or lock-out does not take place until the dispute has been submitted for settlement by negotiation in a manner specified in the agreement. The Court must also satisfy itself that the parties to it are substantially representative of the industry or trade. The reason for these safeguards is that, once an agreement has been registered, it becomes the common rule, enforceable throughout the industry or trade.<sup>2</sup>

In case of violation by an employer the Court may direct compliance, including payment of wages owed. If a trade-union violates the agreement by calling or assisting a strike, the Court may order it to refrain from using its funds for such purpose and may cancel the registration of the agreement. Workers not immediately involved, however, may draw strike benefits if they are unable, or decline, to work while the strike continues. Violation of an order of the Court by an employer or by a trade-union is punishable by a fine not exceeding £100 and, in case the violation continues, of a further fine not to exceed £10 a day. The agreement may be varied, terminated, or canceled with the consent of both parties; it may be canceled by the Court on the ground that a substantial change in the circumstances of the trade or business has occurred.

<sup>2</sup> Most of these provisions are taken over from the Conditions of Employment Act, 1936, sec. 50, and The Shops (Conditions of Employment) Act, 1938, Part V

### *Regulation of Wages and Employment Conditions*

This section of the new act replaces the Trade Boards Acts of 1909 and 1918 for the improvement of substandard wages, hours, and working conditions. The new regulating bodies—Joint Labor Committees—consist of independent, labor, and employer members, as did the Trade Boards. As under the British Wages Council Act 1945,<sup>3</sup> which replaced the British Trade Boards, the Irish Committees are empowered to regulate conditions of employment, fix minimum rates of pay, and fix minimum weekly wages. In other words, they may order a guaranteed workweek whereas formerly they were empowered to fix only hourly rates of pay.

The Ministry of Commerce and Industry performs certain labor-department functions, including factory inspection. It continues to inspect for violations of the orders of the Court regulating wages and conditions of employment and to bring prosecutions in the regular courts.

### *Settlement of Industrial Disputes*

The act provides for the voluntary registration of joint industrial councils (defined as substantially representative organizations of trade-unions and employers of a particular type, class, or group of workers), on condition that the council require its members to submit trade disputes to it prior to engaging in a strike or lock-out. When a work stoppage threatens, the Labor Court may appoint conciliators; or it may investigate the dispute, issue and publicize its own recommendations for the settlement, and, with the consent of the parties, arbitrate the controversy. These functions were formerly exercised under the Conciliation Act of 1896, and the Industrial Court Act of 1919.

The act makes it clear that wherever possible disputes should be settled by the parties through joint industrial councils or through machinery provided in collective-bargaining agreements. In case of a work stoppage not supported by a trade-union, the Court may, on investigation, make a temporary award on conditions of employment; employer violations of this award are punishable by fine.<sup>4</sup>

### *Transitory Provisions*

By the terms of the new law, a trade-union (or other body of workers) may request the Court to continue the wartime wages (standard rate) and bonus orders. If the Court agrees, an upward

<sup>3</sup> See Monthly Labor Review, July 1945, (p. 120), or reprint pamphlet Serial No. R. 1761.

<sup>4</sup> It is possible that this provision may be intended to apply to unorganized industries or industries with substandard working conditions.



adjustment of wages may be obtained through it, but strikes for wage increases are illegal after the Court has made an award.

Earlier legislation had provided for the voluntary registration of unions in order to obtain immunity from damage suits.<sup>5</sup> The Trade Union Act of 1941, intended to reduce jurisdictional disputes, required all trade-unions to obtain a license before engaging in wage negotiation, such license being granted after a tripartite trade-union tribunal had determined the jurisdiction of the union.<sup>6</sup>

<sup>5</sup> See Monthly Labor Review, November 1939 (p. 1053).

<sup>6</sup> See International Labor Review, August 1942 (p. 187).

# Prices and Cost of Living

## Housing and Fuel Expenditures of City Families<sup>1</sup>

HOUSING AND FUEL expenditures of home owners were generally less than those of families in similar income classes renting their homes, according to Bureau of Labor Statistics surveys.<sup>2</sup> Even when payments on mortgages were included in the current expenditures of owners, it was still slightly less expensive to own a home than to rent one. Tenants in large cities had greater housing and fuel expenditures than those in small cities in both 1941 and 1944. A similar situation existed for owners in 1941, but not in 1944. In addition, families with incomes above \$1,500 averaged a smaller proportion of their income for housing in 1944 than in 1941. Many of these families had larger incomes in 1944 than previously and had not increased their housing outlays in proportion to the increases in incomes. Those with incomes below \$1,500, on the contrary, spent larger proportions of their incomes for housing, and were faced with serious problems caused by high rents or higher costs of ownership during the war period.

The question arises whether, despite inflated real estate values, it is still less expensive to buy a home than to rent one. A suggestive, but not a definite, answer to this question is provided by 1944 data on expenditures of home purchasers. Considering only those owners who purchased during 1940 to 1943 and who were making mortgage payments in 1944, the annual housing and fuel outlays (excluding expenditures for lodging away from home) in 1944 by owners and by renters were as follows:

Annual money income after taxes:	Owners' expenditures		Renters' expenditures
	Excluding principal payments	Including principal payments	
\$1,500-\$2,000.....	\$245	\$425	\$384
\$2,000-\$2,500.....	317	537	454
\$2,500-\$3,000.....	349	556	491
\$3,000-\$4,000.....	498	755	539
\$4,000-\$5,000.....	521	787	578

<sup>1</sup> Prepared by Dorothy I. South in the Cost of Living Division of the Bureau's Prices and Cost of Living Branch.

<sup>2</sup> Source of data.—1944 data from Survey of Prices Paid by Consumers, conducted by the Bureau of Labor Statistics in 102 urban communities covering 1,700 families. See BLS, Bulletin No. 838, *Wartime Food Purchases*, for a brief statement on the sampling procedure utilized. 1941 data from Survey of Spending and Saving in Wartime. See BLS Bulletin No. 822, *Family Spending and Saving in Wartime*.

The 1944 expenditures of owners, exclusive of payments on mortgage principal, were below those of renters at all income levels, but inclusion of mortgage principal payments brought owner's total outlays above the expenditures of renters. Many of these owners, it should be remembered, made "forced" purchases during the war period in order to obtain adequate housing, and it is likely that such owners look at a relatively high portion of these payments as actual current costs rather than increases in equity. Furthermore, owners, who have invested a certain amount in down payments on the "forced" purchase of their houses, look at these down payments, in the current market, as a current expense amortized over the period of residence.

One factor favorable to the new owner, in spite of current high realty values, is the long-term plan on which mortgages are being written, thus decreasing his annual outlay. Another favorable factor is the expectation that, although rents have remained under price control longer than other goods and services, sooner or later fairly substantial rent increases will occur. However, if a recession takes place, rents will be free to drop, while the fixed charges to the owner must be met, or he must sell his home.

### 1944 Expenditures

Families who rented their homes in 1944 had greater average expenditures for housing and fuel than did home owners with similar incomes. This held true in both large and small cities.<sup>3</sup>

Owners tended to have higher incomes than renters (20 percent of owners and 9 percent of renters in this survey had incomes over

<sup>3</sup> Definitions of the terms used in this article are as follows:

*Housing expenditures.*—Rent, fuel, refrigeration, light, and repair outlays by renters; interest on mortgage, taxes, insurance, special assessments, refinancing charges, fuel, repairs and replacements, light, and refrigeration outlays by owners. Costs of lodging away from home are also included for both tenants and owners; these figures are very small, on the average, except at the highest income levels.

*Family.*—A group of persons, usually related, who lived together during a designated period, contributing to the family income and/or receiving part of their support from this total income. An individual who lived independently, apart from relatives, was considered a 1-person economic family. Inmates of institutions as well as residents of military camps and posts were excluded.

*Renters.*—Housekeeping families only, exclusive of roomers and light housekeeping families.

*Income.*—The sum of all types of revenue received by family members during the designated period—wage and salary earnings (exclusive of occupational expenses), entrepreneurial net income or withdrawals, and nonearned returns from all sources other than inheritances and large gifts. Because of the large increase in Federal personal income tax rates between 1941 and 1944, personal taxes are deducted from the 1944 income data.

*Large cities.*—Urban communities with a population of 50,000 or over.

*Small cities.*—Urban communities with a population of less than 50,000, within and outside of metropolitan districts.

*Mortgage payments.*—When home owners with amortized loan plans were unable to allocate payments among principal, interest, insurance and/or taxes, all available information was recorded and estimates of the break-down were made by members of the Bureau staff. More estimates were made in 1944 than in 1941. A comparison of total payments including mortgage principal may be somewhat more meaningful than comparison of the components because of the necessarily arbitrary nature of these allocations.



\$5,000 in 1944), and housing expenditures generally vary with incomes. It would, therefore, be entirely possible for the average housing expenditure of all owners to be greater than the average housing expenditure of all renters, although renters consistently spend larger portions of their incomes for housing. The data in this report are broken down by size of income in order to avoid the possibly misleading conclusions of general dollar averages. (See table 1 for break-down of expenditures by type of tenure, size of city, and income.)

TABLE 1.—Average annual expenditure for housing and fuel <sup>1</sup> of city families,<sup>2</sup> by type of tenure,<sup>3</sup> city size,<sup>4</sup> and income class,<sup>5</sup> 1944 and 1941

1944									
Tenure group <sup>3</sup> and item	Annual money income <sup>5</sup>								
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$2,500	\$2,500 to \$3,000	\$3,000 to \$4,000	\$4,000 to \$5,000	\$5,000 and over
Large and small cities									
<i>Home owners</i>									
Percent of families in income class.....	4.1	7.7	5.0	7.0	10.8	13.5	20.8	11.3	19.8
Expenditures for—									
Housing; including payments on mortgage principal.....	\$124	\$169	\$185	\$226	\$241	\$323	\$338	\$413	\$573
Fuel <sup>1</sup> .....	95	103	139	120	131	143	151	200	175
Total housing and fuel:									
Including payments on mortgage principal.....	219	272	324	346	372	466	489	613	748
Excluding payments on mortgage principal.....	199	216	282	255	267	333	384	478	552
<i>Renters</i>									
Percent of families in income class.....	2.5	6.3	6.5	14.3	15.9	13.8	22.6	9.1	9.0
Expenditures for—									
Housing.....	\$225	\$215	\$282	\$295	\$353	\$408	\$431	\$476	\$607
Fuel <sup>1</sup> .....	60	83	76	95	106	88	116	121	121
Total housing and fuel.....	285	298	358	390	459	496	547	597	728
Large cities									
<i>Home owners</i>									
Percent of families in income class.....	4.3	6.0	4.3	8.0	11.0	15.3	19.7	11.0	20.4
Expenditures for—									
Housing; including payments on mortgage principal.....	\$142	\$204	\$233	\$193	\$238	\$333	\$321	\$398	\$549
Fuel <sup>1</sup> .....	122	115	163	95	129	145	140	156	173
Total housing and fuel:									
Including payments on mortgage principal.....	264	319	396	288	367	478	461	554	722
Excluding payments on mortgage principal.....	232	267	352	190	266	329	360	401	569
<i>Renters</i>									
Percent of families in income class.....	2.4	6.4	7.1	15.1	15.6	13.7	21.5	8.5	9.7
Expenditures for—									
Housing.....	\$273	\$224	\$295	\$310	\$376	\$416	\$456	\$517	\$607
Fuel <sup>1</sup> .....	61	79	74	96	102	93	110	108	112
Total housing and fuel.....	334	303	369	406	478	509	566	625	719

See footnotes at end of table.

TABLE 1.—Average annual expenditure for housing and fuel <sup>1</sup> of city families, <sup>2</sup> by type of tenure, <sup>3</sup> city size, <sup>4</sup> and income class, <sup>5</sup> 1944 and 1941—Continued

1944—Continued

Tenure group <sup>3</sup> and item	Annual money income <sup>5</sup>								
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$2,500	\$2,500 to \$3,000	\$3,000 to \$4,000	\$4,000 to \$5,000	\$5,000 and over
Small cities									
<i>Home owners</i>									
Percent of families in income class.....	3.9	9.5	5.6	6.0	10.5	11.6	22.0	11.6	19.3
Expenditures for—									
Housing, including payments on mortgage principal.....	\$101	\$146	\$144	\$268	\$245	\$311	\$351	\$428	\$595
Fuel <sup>1</sup> .....	59	95	120	156	132	141	160	245	180
Total housing and fuel:									
Including payments on mortgage principal.....	160	241	264	424	377	452	511	673	775
Excluding payments on mortgage principal.....	154	181	225	343	268	340	404	557	532
<i>Renters:</i>									
Percent of families in income class.....	2.6	6.0	5.2	12.4	16.7	14.2	24.9	10.7	7.3
Expenditures for—									
Housing.....	\$114	\$194	\$220	\$246	\$291	\$377	\$373	\$398	\$626
Fuel <sup>1</sup> .....	55	89	82	88	116	75	127	147	153
Total housing and fuel.....	169	283	302	334	407	452	500	545	779

1941

Large and small cities									
<i>Home owners</i>									
Percent of families in income class.....	6.5	10.4	11.1	12.3	15.9	15.3	13.7	6.2	8.6
Expenditures for—									
Housing, including payments on mortgage principal.....	\$76	\$107	\$208	\$194	\$346	\$410	\$385	\$431	\$845
Fuel <sup>1</sup> .....	58	75	107	144	133	141	140	186	239
Total housing and fuel:									
Including payments on mortgage principal.....	134	182	315	338	479	551	525	617	1,084
Excluding payments on mortgage principal.....	128	154	271	285	372	415	400	520	941
<i>Renters</i>									
Percent of families in income class.....	5.2	13.9	16.0	20.2	16.5	12.1	8.5	4.1	3.5
Expenditures for—									
Housing.....	\$100	\$179	\$254	\$298	\$355	\$415	\$482	\$530	\$708
Fuel <sup>1</sup> .....	29	56	79	97	102	104	121	149	142
Total housing and fuel.....	129	235	333	395	457	519	603	679	850
Large cities									
<i>Home owners</i>									
Percent of families in income class.....	3.2	7.7	10.8	9.5	14.4	17.5	19.8	6.8	10.3
Expenditures for—									
Housing, including payments on mortgage principal.....	\$128	\$161	\$232	\$238	\$423	\$401	\$385	\$482	\$923
Fuel <sup>1</sup> .....	69	90	99	151	133	136	135	191	225
Total housing and fuel:									
Including payments on mortgage principal.....	197	251	331	389	556	537	520	673	1,148
Excluding payments on mortgage principal.....	188	195	282	326	426	408	406	554	985
<i>Renters</i>									
Percent of families in income class.....	3.3	12.6	17.3	18.7	16.5	15.1	8.2	3.9	4.4
Expenditures for—									
Housing.....	\$125	\$197	\$268	\$317	\$370	\$425	\$508	\$519	\$709
Fuel <sup>1</sup> .....	36	57	79	88	100	100	110	105	119
Total housing and fuel.....	161	254	347	405	470	525	618	624	828

See footnotes at end of table.

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TABLE 1.—Average annual expenditure for housing and fuel <sup>1</sup> of city families, <sup>2</sup> by type of tenure, <sup>3</sup> city size, <sup>4</sup> and income class, <sup>5</sup> 1944 and 1941—Continued

Tenure group <sup>3</sup> and item	Annual money income <sup>5</sup>								
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$2,500	\$2,500 to \$3,000	\$3,000 to \$4,000	\$4,000 to \$5,000	\$5,000 and over
<b>Small cities</b>									
<i>Home owners</i>									
Percent of families in income class.....	10.0	13.3	11.4	15.3	17.6	12.9	7.1	5.7	6.7
Expenditures for—									
Housing; including payments on mortgage principal.....	\$62	\$75	\$185	\$166	\$279	\$408	\$385	\$368	\$717
Fuel <sup>1</sup> .....	54	66	114	139	132	149	156	180	261
Total housing and fuel:									
Including payments on mortgage principal.....	116	141	299	305	411	557	541	548	978
Excluding payments on mortgage.....	111	130	259	258	324	412	381	478	868
<i>Renters</i>									
Percent of families in income class.....	9.1	16.6	13.2	23.4	16.6	5.7	9.1	4.6	1.7
Expenditures for—									
Housing.....	\$82	\$149	\$216	\$266	\$324	\$357	\$435	\$550	\$701
Fuel <sup>1</sup> .....	24	54	78	113	106	124	143	228	264
Total housing and fuel.....	106	203	294	379	430	481	578	778	965

<sup>1</sup> Includes also expenditure for light and refrigeration.<sup>2</sup> The term "family" is used to include single persons who live independently.<sup>3</sup> The expenditures of families (including single-person families) that changed tenure during the year or that received rent as pay, gift, or relief, are excluded from the averages in this table. A few families classified as renters at the end of the year were roomers earlier in the year.<sup>4</sup> The city size classification is as follows: Large cities are those with population of 50,000 or more; small cities, those with population of less than 50,000, within and outside of metropolitan districts as defined by the Census. The size classification for 1941 is based on 1940 Census data, for 1944, on 1943 population estimates.<sup>5</sup> The 1944 data are classified by total money income after personal taxes; the 1941 data by total money income.

Payments made on mortgage principal make direct comparisons of owners' and renters' housing expenditures difficult. This is true because payments on mortgage principal are considered as both housing costs and savings. An indeterminate portion of the payment represents protection of the equity—which guarantees the owner's occupancy of his partially paid-for home—and may legitimately be considered as a cost of housing to the owner. The remainder of the payment represents an increase in equity, and may be considered as savings and not purely as a housing cost. Even if the full amount of the payment on mortgage principal is considered as a housing cost and is included, the total housing expenditure by owners is generally less than that by tenants.

Housing expenditures were generally less in small cities than in large cities for families with low and moderate incomes. At higher incomes (\$3,000 for owners and \$5,000 for tenants), however, such expenditures took a smaller proportion of income in large cities than in small cities. Table 2 shows the distribution of families by tenure type and city size in 1941 and 1944.



The size of the family (except for single-person families) appears to have no effect on the housing expenditures of the average tenant family. Table 3 shows average expenditures by families of different income according to type of housing tenure and size of family, in 1944. Expenditures for housing by the home owner, however, appear to vary somewhat with the size of the family—to be larger for large families and smaller for small families. If expenditure provides some measure of housing adequacy, large families that rent are less adequately housed than smaller families that rent.

TABLE 2.—Percentage distributions of city families <sup>1</sup> by type of tenure, <sup>2</sup> city size, <sup>3</sup> income class <sup>4</sup> and family size, <sup>5</sup> 1944 and 1941

1944									
Tenure type <sup>2</sup> and city size <sup>3</sup>	Annual money income <sup>4</sup>								
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$2,500	\$2,500 to \$3,000	\$3,000 to \$4,000	\$4,000 to \$5,000	\$5,000 and over
Percentage distribution by city size									
Home owners.....	100	100	100	100	100	100	100	100	100
Large cities.....	54	40	45	59	52	58	48	50	53
Small cities.....	46	60	55	41	48	42	52	50	47
Renters.....	100	100	100	100	100	100	100	100	100
Large cities.....	70	73	77	75	70	71	68	66	77
Small cities.....	30	27	23	25	30	29	32	34	23
Percentage distribution by tenure									
All families.....	100	100	100	100	100	100	100	100	100
Home owners.....	35	36	25	21	28	37	38	42	57
Renters.....	29	41	46	60	57	52	56	47	36
Roomers.....	16	12	19	11	10	3	2	3	2
Other.....	20	11	10	8	5	8	4	8	5
Large city families.....	100	100	100	100	100	100	100	100	100
Home owners.....	28	23	18	18	23	33	30	36	48
Renters.....	30	47	55	64	62	56	63	53	44
Roomers.....	22	16	20	13	12	4	3	4	2
Other.....	20	14	7	5	3	7	4	7	6
Small city families.....	100	100	100	100	100	100	100	100	100
Home owners.....	48	59	39	29	37	45	50	52	71
Renters.....	26	30	29	50	48	45	46	39	22
Roomers.....	4	4	17	7	6	1	0	0	3
Other.....	22	7	15	14	9	9	4	9	4
Average family size <sup>5</sup>									
Home owners.....	1.8	1.9	2.8	2.9	3.1	2.9	3.6	4.1	4.1
Large cities.....	1.8	1.7	2.4	2.7	3.1	2.9	3.7	3.9	3.9
Small cities.....	1.6	2.0	3.1	3.2	3.1	2.9	3.6	4.3	4.3
Renters.....	1.6	2.0	2.0	2.7	2.8	3.2	3.7	3.9	4.0
Large cities.....	1.3	2.2	2.0	2.6	2.7	3.3	3.7	3.8	3.9
Small cities.....	2.2	1.7	2.1	3.1	2.8	2.8	3.6	4.1	4.2

See footnotes at end of table.

TABLE 2.—Percentage distributions of city families<sup>1</sup> by type of tenure,<sup>2</sup> city size,<sup>3</sup> income class<sup>4</sup> and family size<sup>5</sup> 1944 and 1941—Continued

Tenure type <sup>2</sup> and city size <sup>3</sup>	1941								
	Annual money income <sup>4</sup>								
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$2,500	\$2,500 to \$3,000	\$3,000 to \$4,000	\$4,000 to \$5,000	\$5,000 and over
Percentage distribution by city size									
Home owners.....	100	100	100	100	100	100	100	100	100
Large cities.....	25	38	50	40	46	59	75	56	62
Small cities.....	75	62	50	60	54	41	25	44	38
Renters.....	100	100	100	100	100	100	100	100	100
Large cities.....	43	61	73	62	67	85	65	64	84
Small cities.....	57	39	27	38	33	15	35	36	16
Percentage distribution by tenure									
All families.....	100	100	100	100	100	100	100	100	100
Home owners.....	29	24	27	27	38	45	50	54	63
Renters.....	29	40	48	55	48	44	40	44	32
Roomers.....	19	16	16	8	5	3	2	2	0
Other.....	23	20	9	10	9	8	8	0	5
Large city families.....	100	100	100	100	100	100	100	100	100
Home owners.....	16	16	20	19	30	37	55	50	56
Renters.....	28	43	51	63	56	53	37	47	39
Roomers.....	33	20	19	10	6	2	1	3	0
Other.....	23	21	10	8	8	8	7	0	5
Small city families.....	100	100	100	100	100	100	100	100	100
Home owners.....	38	35	41	36	49	63	43	60	77
Renters.....	29	36	40	46	38	23	46	40	17
Roomers.....	9	11	10	6	4	7	3	0	0
Other.....	24	18	9	12	9	7	8	0	6
Average family size <sup>5</sup>									
Home owners.....	1.7	2.4	2.8	3.2	3.2	3.7	3.6	4.2	4.7
Large cities.....	1.7	2.0	2.5	3.4	3.3	3.7	3.6	3.8	5.4
Small cities.....	1.7	2.6	3.1	3.0	3.1	3.7	3.6	4.7	3.5
Renters.....	1.9	2.8	2.9	3.4	3.3	3.7	3.6	3.9	4.0
Large cities.....	1.8	2.6	2.8	3.3	3.3	3.7	3.5	3.8	3.9
Small cities.....	1.9	3.1	2.9	3.5	3.3	3.4	3.9	4.0	4.7

<sup>1</sup> The term "family" is used to include single persons who live independently.

<sup>2</sup> Data presented for home owners, renters, and roomers, respectively, are for those that did not change tenure during the year or receive rent as pay, gift, or relief. However, a few families classified as renters at the end of the year were roomers earlier in the year, and vice versa. Included as "other" are families and single persons that changed tenure during the year or received rent as pay, gift or relief.

<sup>3</sup> The city-size classification is as follows: Large cities are those with population of 50,000 or more; small cities those with a population of less than 50,000, within and outside of metropolitan districts as defined by the Census. The size classification for 1941 is based on 1940 Census data, for 1944, on 1943 population estimates.

<sup>4</sup> The 1944 data are classified by total money income after personal taxes; the 1941 data by total money income.

<sup>5</sup> Family size is based on equivalent persons; that is, 52 weeks of family membership is considered the equivalent of 1 person; 26 weeks, the equivalent of 0.5 person, etc.

Many factors besides family income, type of tenure, size of family, and size of city, undoubtedly, affect the housing expenditures of American families. Race, occupation, and region, for example, are known to be important factors. However, neither the 1944 nor the 1941 sample was of sufficient size to permit analysis of the effects of these factors on housing expenditure, if income, city size, and family size were held constant.

TABLE 3.—Average annual expenditure for housing <sup>1</sup> and fuel <sup>2</sup> by families <sup>3</sup> in all cities and in large cities <sup>4</sup> by type of tenure <sup>5</sup> family size, and income class, 1944

Tenure type and family size	Annual money income after personal taxes								
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$2,500	\$2,500 to \$3,000	\$3,000 to \$4,000	\$4,000 to \$5,000	\$5,000 and over
<b>All cities</b>									
Home owners: <sup>1</sup>									
1 person.....	\$222	\$274	\$466	\$534	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
2 or more persons.....	208	271	277	338	355	\$468	\$491	\$613	\$753
2 persons.....	218	284	239	260	301	388	455	561	718
3 or 4 persons.....	( <sup>6</sup> )	245	339	356	371	554	497	638	703
5 or more persons.....	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	534	470	344	510	615	855
Renters:									
1 person.....	217	275	359	373	434	511	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
2 or more persons.....	435	306	348	391	454	497	545	597	682
2 persons.....	505	322	353	394	451	510	510	687	709
3 or 4 persons.....	( <sup>6</sup> )	259	336	383	479	481	552	600	683
5 or more persons.....	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	425	456	527	561	520	664
<b>Large cities <sup>2</sup></b>									
Home owners: <sup>1</sup>									
1 person.....	234	335	493	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
2 or more persons.....	275	303	334	282	361	480	465	545	716
2 persons.....	299	316	( <sup>6</sup> )	212	330	397	426	523	611
3 or 4 persons.....	256	363	347	406	604	428	626	626	626
5 or more persons.....	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	327	587	443	992
Renters:									
1 person.....	254	288	370	374	448	522	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
2 or more persons.....	( <sup>6</sup> )	306	363	414	472	510	562	628	701
2 persons.....	( <sup>6</sup> )	315	371	405	441	523	532	796	711
3 or 4 persons.....	( <sup>6</sup> )	302	347	403	497	491	567	598	707
5 or more persons.....	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	510	552	578	539	685

<sup>1</sup> Home owners' expenditures include mortgage principal payments.<sup>2</sup> Includes also expenditures for light and refrigeration.<sup>3</sup> The term "family" is used to include single persons who live independently.<sup>4</sup> Cities with estimated 1943 population of 50,000 or more. The sample for small cities was not large enough for analysis by family size.<sup>5</sup> The expenditures of families (including single-person families) that changed tenure during the year or that received rent as pay, gift, or relief, are excluded from the averages in this table. A few families classified as renters at the end of the year were roomers earlier in the year.<sup>6</sup> The number of cases in this class was insufficient to yield reliable averages.

### 1941 Expenditures

The difference in housing expenditures, between home owners and tenants, that are shown by the 1944 data did not result from wartime changes; they also existed in 1941.

Expenditures by tenants for housing in 1941 were greater on the average than those by owners, but differences between the two were not so great in that year as in 1944 (see tables 1 and 2). When the full amount of payments on mortgage principal in 1941 was added to expenditures of home owners (which would result in an obvious overstatement of outlay for housing), expenditures in large cities were about the same for families of similar incomes in both groups. The generally more expensive pattern of the large city as compared to the small city also existed in 1941. There were more tenants in large than small cities (70 percent of all tenants) and about the same proportion of owners (50 percent of all owners). These proportions held true in both years. In 1941 there were no data on housing and fuel expenditures by families of different sizes,



*Expenditure Changes, 1941-44*

In both 1941 and 1944, tenants typically had larger housing expenditures than owners at comparable income levels, and such differences in favor of the owner appear to have increased during the war years, especially in large cities.

The differences between the two periods in amounts spent in large cities for housing and fuel, at each income level by renters and owners, respectively, are illustrated below.

Annual money income:	Increase or decrease (-) 1941 to 1944, in annual expenditures for housing and fuel in large cities by—	
	Renters	Owners <sup>1</sup>
Under \$500.....	\$173	\$67
\$500-\$1,000.....	49	68
\$1,000-\$1,500.....	22	65
\$1,500-\$2,000.....	1	-101
\$2,000-\$2,500.....	8	-189
\$2,500-\$3,000.....	-16	-59
\$3,000-\$4,000.....	-52	-59
\$4,000-\$5,000.....	1	-119
\$5,000 and over.....	109	-426

<sup>1</sup> Expenditure figures include payments on mortgage principal.

From the above, it is clear that renters paid about the same in 1944 as in 1941 or slightly more, while home owners at comparable income levels above \$1,500, showed a marked decrease in expenditures. Owners' outlays for interest, insurance, and taxes were lower in the later period, while expenditures for repairs, except for the highest income group, remained about constant (table 4). In spite of high costs and relative unavailability of labor and materials, there is, annually, a certain amount of repair work that cannot be postponed.

The apparent reduction in home owners' average interest, insurance, and tax payments reflects, of course, the fact that for most of those who did not move between 1941 and 1944 these charges remained the same even though their incomes may have increased. Incomes for both owners and renters improved during this period—the median income for renters went from \$1,950 to \$2,610, while the median income for owners rose from \$2,630 to \$3,050—but the comparative position of the renter deteriorated.

The deterioration of the position of the renter was due in part to migration; fewer housing facilities were available in large urban centers and a greater number of families were demanding them. Renters who moved were almost certain not only to pay more rent than formerly but were also likely to pay more than those with the same income who had not moved. Even though rent ceilings in general prevented large increases in the rentals of individual units, there was a considerable degree of variation between rentals for similar units, and

those that were higher-priced were the ones most likely to be available to the new comer.

At the lower end of the income scale—below \$1,500 annual cash income—both home owners and renters faced a serious rise in costs. In both years, the lower-income brackets undoubtedly included families, consisting of older persons, living in homes purchased or rented at a time when their incomes were higher. In 1944 this group also included families whose incomes were decreased by the departure of earners for service in the armed forces.

While the foregoing discussion of changes from 1941 to 1944 applies to home owners and renters living in large cities, the situation is similar, in general, in small cities. An improvement in the position of owners relative to renters is not so apparent in small cities, however, primarily because typical migration is from the small to the large city.

TABLE 4.—Average annual housing expenditures of city families <sup>1</sup> who owned homes, <sup>2</sup> by income, <sup>3</sup> 1944 and 1941

Item	Annual money income <sup>3</sup>								
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$2,500	\$2,500 to \$3,000	\$3,000 to \$4,000	\$4,000 to \$5,000	\$5,000 and over
<b>1944</b>									
Total housing expenditure <sup>4</sup> .....	\$124	\$169	\$185	\$226	\$241	\$323	\$338	\$413	\$573
Family home.....	124	166	178	223	240	319	328	391	542
Current expense.....	104	110	136	132	135	186	223	256	346
Interest, insurance, taxes.....	58	74	66	88	84	119	138	151	186
Repairs, replacements.....	45	34	68	41	44	63	75	94	150
Other.....	1	2	2	3	7	4	10	11	10
Payments on mortgage principal.....	20	56	42	91	105	133	105	135	196
Lodging away from home.....	0	3	7	3	1	4	10	22	31
Percent of owners making—									
Payments on mortgage principal.....	25	33	24	49	43	49	48	50	55
Repairs.....	42	44	41	54	44	53	61	59	57
<b>1941</b>									
Total housing expenditure <sup>4</sup> .....	76	107	208	194	346	410	400		845
Family home.....	75	107	201	190	331	388	367		753
Current expense.....	69	79	157	137	224	252	250		610
Interest, insurance, taxes.....	43	59	117	99	158	200	191		393
Repairs, replacements.....	19	20	38	37	64	46	58		214
Other.....	7	0	2	1	2	6	1		3
Payments on mortgage principal.....	6	28	44	53	107	136	117		143
Lodging away from home.....	1	( <sup>5</sup> )	7	4	15	22	33		92
Percent of owners making—									
Payments on mortgage principal.....	14	29	40	32	51	62	51		38
Repairs.....	32	41	46	51	49	57	62		78

<sup>1</sup> The term "family" is used to include single persons who live independently.

<sup>2</sup> The expenditures of families who owned homes only part of the year are excluded from the average in this table.

<sup>3</sup> The 1944 data are classified by total money income after personal taxes; the 1941 data by total money income.

<sup>4</sup> Includes payment on mortgage principal on owned home.

<sup>5</sup> Less than \$0.50.

## Index of Consumers' Prices in Large Cities, March 1947<sup>1</sup>

CONSUMERS' GOODS AND SERVICES for moderate-income families were 2.0 percent higher in mid-March than in mid-February. This advance brought the consumers' price index to a record high of 156.3 (1935-39=100) on March 15, 1947; it followed a two-month period in which retail prices remained unchanged or decreased slightly.

Retail prices for all major groups of living essentials advanced. Food prices in large cities jumped almost 4 percent; clothing prices rose 1.5 percent; housefurnishings and miscellaneous goods and services advanced 0.6 percent; rent, fuels, and light increased fractionally. In mid-March, consumers' prices were 20 percent higher than a year ago, and 58.5 percent above August 1939.

The family food bill—amounting to more than two-fifths of the moderate-income city families' budget—advanced 3.9 percent between February 15 and March 15, after declining 2.9 percent between mid-November and mid-February. Prices for all major groups of foods rose. Meats averaged 5.5 percent higher as prices for pork increased more than 13 percent. Fresh fruits and vegetables advanced 5.3 percent, reflecting the February freeze of the winter vegetable crops. Prices of fats and oils averaged 9 percent higher as lard prices jumped nearly 20 percent. All other food prices rose 2.1 percent between February 15 and March 15. Between mid-March and mid-April food prices usually increase; this year, however, food prices dropped about 5 percent, according to a special survey.

On March 15, the food price index was 189.5 (1935-39=100). Food prices in large cities have advanced almost 103 percent since the

<sup>1</sup> The "consumers' price index" for moderate-income families in large cities, formerly known as the "cost of living index," measures average changes in retail prices of selected goods, rents, and services, weighted by quantities bought by families of wage earners and moderate-income workers in large cities in 1934-36. The items priced for the index constituted about 70 percent of the expenditures of city families whose income averaged \$1,524 in 1934-36.

The indexes are based on time-to-time changes in the cost of goods and services purchased by moderate-income families in large cities. They do not indicate whether it costs more to live in one city than in another.

Data relate to the fifteenth of each month except those for January 1941 in tables 1 and 2, which have been estimated for January 1.

January 1, 1941, is the wage base date for determining allowable "cost of living" wage increases under the Little Steel formula and under the wage-price policy of February 1946. January 1, 1941, indexes in tables 1 and 2 have been estimated by assuming an even rate of change from December 15, 1940, to the next pricing period.

Food prices are collected monthly in 56 cities during the first 4 days of the week which includes the Tuesday nearest the fifteenth of the month. Aggregate costs of foods in each city, weighted to represent food purchases of families of wage earners and moderate-income workers, have been combined for the United States with the use of population weights. In March 1943 the number of cities included in the food index was increased from 51 to 56, and the number of foods from 54 to 61.

Prices of clothing, housefurnishings, and miscellaneous goods and services are obtained in 34 large cities in March, June, September, and December. In intervening months, prices are collected in 21 of the 34 cities for a shorter list of goods and services.



month before the outbreak of war in Europe. Prices of fats and oils are 159 percent higher than in August 1939; meat and fresh fruits and vegetables have each risen 116 percent; prices of dairy products are 101 percent above August 1939.

Clothing prices rose 1.5 percent between February and March, 4.4 percent over the quarter from December 1946 to March 1947. Prices for nearly all garments and shoes increased from February 15 to March 15. In most cities higher prices were reported for men's wool clothing, business shirts, work clothing, and underclothing. Prices of women's rayon dresses, slips and hosiery also advanced. The cost of leather footwear and shoe repairs for all members of the family rose again.

Prices on housefurnishings increased 0.8 percent between mid-February and mid-March as most items in this group continued to advance. Prices for gas stoves, washing machines, and bedroom suites advanced; prices for small table-model radios, higher quality electric refrigerators, upholstered furniture, and mattresses, declined in some cities.

Miscellaneous goods and services costs rose 0.6 percent. Costs of medical care, especially hospital rates, increased. Prices also went up for gasoline, newspapers, and auto insurance. Slightly lower prices were reported for some automobiles.

TABLE 1.—Index of consumers' prices for moderate-income families and percent changes, March 15, 1947, compared with earlier periods

Group	Mar. 15, 1947	Feb. 15, 1947	Mar. 15, 1946	Aug. 15, 1945	Jan. 1, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ-day	Wage base date	Month before war in Europe
Indexes (1935-39=100)						
All items.....	156.3	153.2	130.2	129.3	100.8	98.6
Food.....	189.5	182.3	140.1	140.9	97.6	93.5
Clothing.....	184.3	181.5	153.1	146.4	101.2	100.3
Rent.....	109.0	108.9	108.4	105.0	105.0	104.3
Fuel, electricity, and ice.....	117.6	117.5	110.5	111.4	100.8	97.5
Gas and electricity.....	92.2	92.2	92.9	95.2	97.5	99.0
Other fuels and ice.....	142.5	142.3	127.7	127.2	104.0	96.3
Housefurnishings.....	182.3	180.8	150.2	146.0	100.2	100.6
Miscellaneous.....	138.2	137.4	125.9	124.5	101.8	100.4
Percent changes to March 1947						
All items.....	2.0	20.0	20.9	55.1	58.5	
Food.....	3.9	35.3	34.5	94.2	102.7	
Clothing.....	1.5	20.4	25.9	82.1	83.7	
Rent.....	.1	.6	3.8	4.5		
Fuel, electricity, and ice.....	.1	6.4	5.6	16.7	20.6	
Gas and electricity.....	0	-.8	-3.2	-5.4	-6.9	
Other fuels and ice.....	.1	11.6	12.0	37.0	48.0	
Housefurnishings.....	.8	21.4	24.9	81.9	81.2	
Miscellaneous.....	.6	9.8	11.0	35.8	37.6	

Fuel, electricity, and ice costs increased 0.1 percent during the month as prices for petroleum products advanced in a number of cities.

Information on changes in residential rents was obtained in March from a small group of dwellings in 6 cities. On the basis of this information, it was estimated that the rent index for all large cities combined increased 0.1 percent to 109.0 (1935-39=100) on March 15, 1947. Rents advanced in Mobile, as higher rates were charged for public housing.

TABLE 2.—Percent changes in consumers' price index from specified dates to March 15 1947, by cities

City	Indexes (1935-39= 100)	Percent changes to March 1947 from—					
	Mar. 15, 1947	Feb. 15, 1947	Mar. 15, 1946	Aug. 15, 1935	Jan. 1, 1941	Aug. 15, 1939	
	This month	Last month	Year ago	VJ-day	Wage base date	Month before war in Europe	
Average.....	156.3	2.0	20.0	20.0	55.1	58.5	
Atlanta, Ga.....	160.9	.....	22.3	22.5	61.2	64.2	
Baltimore, Md.....	159.6	2.4	20.8	20.4	58.5	61.7	
Birmingham, Ala.....	162.0	2.5	21.6	21.0	59.4	64.5	
Boston, Mass.....	150.3	2.0	19.6	19.6	51.7	54.8	
Buffalo, N. Y.....	155.3	1.9	19.3	20.0	52.4	57.7	
Chicago, Ill.....	156.2	2.2	22.0	22.1	54.3	58.3	
Cincinnati, Ohio.....	157.0	2.5	21.3	21.4	57.6	61.4	
Cleveland, Ohio.....	159.2	2.1	20.9	20.5	56.1	59.2	
Denver, Colo.....	154.8	1.7	20.1	21.2	54.8	57.0	
Detroit, Mich.....	156.5	2.2	18.4	19.3	55.0	58.9	
Houston, Tex.....	157.1	1.9	23.1	23.3	54.0	56.0	
Indianapolis, Ind.....	157.5	.....	21.2	21.2	54.4	60.7	
Jacksonville, Fla.....	163.4	.....	20.1	18.7	60.4	65.9	
Kansas City, Mo.....	150.8	1.4	18.1	18.2	53.3	52.9	
Los Angeles, Calif.....	156.9	.6	17.9	19.8	53.1	56.1	
Manchester, N. H.....	158.1	.....	20.7	20.5	57.8	61.7	
Memphis, Tenn.....	158.8	.....	19.8	19.8	59.1	62.4	
Milwaukee, Wis.....	154.5	.....	21.6	21.7	55.7	59.3	
Minneapolis, Minn.....	151.6	1.7	20.2	21.4	48.9	52.1	
Mobile, Ala.....	159.2	.....	21.2	20.8	58.6	61.5	
New Orleans, La.....	164.5	.....	22.4	22.2	61.8	65.0	
New York, N. Y.....	157.4	2.1	19.1	21.1	55.8	59.0	
Norfolk, Va.....	160.9	.....	20.3	20.3	59.9	64.5	
Philadelphia, Pa.....	156.1	3.0	20.6	21.6	57.4	59.6	
Pittsburgh, Pa.....	159.2	1.7	21.3	22.3	57.3	61.8	
Portland, Maine.....	152.5	.....	20.3	20.1	54.8	57.1	
Portland, Oreg.....	160.6	.....	18.2	18.3	57.5	60.4	
Richmond, Va.....	152.9	.....	21.3	21.3	53.5	56.0	
St. Louis, Mo.....	155.8	2.6	21.3	22.2	54.3	58.8	
San Francisco, Calif.....	160.3	1.2	20.0	21.0	57.5	61.4	
Savannah, Ga.....	166.6	2.5	20.1	20.5	64.3	67.8	
Scranton, Pa.....	157.3	.....	22.3	23.3	58.6	63.9	
Seattle, Wash.....	158.2	1.8	17.9	19.0	54.9	57.7	
Washington, D. C.....	154.7	2.1	17.9	20.0	54.9	56.9	

TABLE 3.—Percent changes in consumers' price index, by cities and groups of items, from February 15 to March 15, 1947

City	All items	Food	Clothing	Rent	Fuel, electricity, and ice			House-furnishings	Miscellaneous
					Total	Gas and electricity	Other fuels and ice		
Average.....	2.0	3.9	1.5	0.1	0.1	0	0.1	0.8	0.6
Atlanta, Ga.....	2.4	6.5	—	—	0	0	.1	—	—
Baltimore, Md.....	2.5	5.1	.9	—	.1	0	.1	—	.2
Birmingham, Ala.....	2.0	4.9	2.5	—	0	0	0	1.7	.2
Boston, Mass.....	2.0	4.2	-1.0	1.2	.1	.1	.1	1.6	.5
Buffalo, N. Y.....	1.9	3.7	1.8	—	0	0	0	1.3	.7
Chicago, Ill.....	2.2	4.1	2.4	—	.3	0	.4	.6	.4
Cincinnati, Ohio.....	2.5	4.6	1.1	—	0	0	0	.1	1.5
Cleveland, Ohio.....	2.1	4.4	.7	—	.1	0	0	2.1	.6
Denver, Colo.....	1.7	3.1	2.1	—	0	0	0	.7	.4
Detroit, Mich.....	2.2	4.5	2.2	—	.2	.4	.1	1.4	.5
Houston, Tex.....	1.9	3.0	3.4	—	.1	0	.5	.6	1.2
Indianapolis, Ind.....	—	4.4	—	—	.1	0	.1	—	—
Jacksonville, Fla.....	—	5.0	—	2.5	.6	0	.9	—	—
Kansas City, Mo.....	1.4	3.2	1.0	—	0	0	0	.7	.1
Los Angeles, Calif.....	.6	.7	2.1	—	0	0	0	.3	.2
Manchester, N. H.....	—	5.2	—	—	.1	0	.1	—	—
Memphis, Tenn.....	—	3.3	—	—	0	0	0	—	—
Milwaukee, Wis.....	—	3.8	—	—	-.1	-.8	.4	—	—
Minneapolis, Minn.....	1.7	3.8	.7	1.4	.4	0	.5	.7	.4
Mobile, Ala.....	—	5.8	—	1.9	2.9	0	4.1	—	—
New Orleans, La.....	—	2.6	—	—	.1	0	.1	—	—
New York, N. Y.....	2.1	4.1	1.5	—	.1	.1	.1	.5	.1
Norfolk, Va.....	—	4.3	—	—	0	0	0	—	—
Philadelphia, Pa.....	3.0	4.9	2.1	—	0	0	0	.1	2.6
Pittsburgh, Pa.....	1.7	3.4	1.6	—	0	0	0	.8	.1
Portland, Maine.....	—	6.0	—	—	.1	0	.1	—	—
Portland, Oreg.....	—	3.6	—	—	0	.1	0	—	—
Richmond, Va.....	—	3.7	—	—	0	0	0	—	—
St. Louis, Mo.....	2.6	5.6	1.1	—	.1	0	.1	.1	.5
San Francisco, Calif.....	1.2	2.1	1.5	—	0	0	0	.6	.3
Savannah, Ga.....	2.5	4.9	.3	—	.1	0	.1	2.0	.8
Seranton, Pa.....	—	3.5	—	1.1	-.3	0	-.4	—	—
Seattle, Wash.....	1.8	3.7	1.7	1.1	0	0	0	1.8	0
Washington, D. C.....	2.1	5.0	.8	—	0	0	.1	.8	.3

<sup>1</sup> Change from August 1946.<sup>2</sup> Change from September 1946.



TABLE 4.—*Indexes of consumers' prices for moderate-income families in large cities, 1935 to March 1947*

Year and month	Indexes (1935-39=100) of cost of—						
	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935.....	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936.....	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937.....	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938.....	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939.....	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940.....	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941.....	105.2	105.5	106.3	106.2	102.2	107.3	104.0
1942.....	116.5	123.9	124.2	108.5	105.4	122.2	110.9
1943.....	123.6	138.0	129.7	108.0	107.7	125.6	115.8
1944.....	125.5	136.1	138.8	108.2	109.8	136.4	121.3
1945.....	128.4	139.1	145.9	108.3	110.3	145.8	124.1
1945:							
Jan. 15.....	127.1	137.3	143.0	( <sup>1</sup> )	109.7	143.6	123.3
Feb. 15.....	126.9	136.5	143.3	( <sup>1</sup> )	110.0	144.0	123.4
Mar. 15.....	126.8	135.9	143.7	108.3	110.0	144.5	123.6
Apr. 15.....	127.1	136.6	144.1	( <sup>1</sup> )	109.8	144.9	123.8
May 15.....	128.1	138.8	144.6	( <sup>1</sup> )	110.0	145.4	123.9
June 15.....	129.0	141.1	145.4	108.3	110.0	145.8	124.0
July 15.....	129.4	141.7	145.9	( <sup>1</sup> )	111.2	145.6	124.3
Aug. 15.....	129.3	140.9	146.4	( <sup>1</sup> )	111.4	146.0	124.5
Sept. 15.....	128.9	139.4	148.2	108.3	110.7	146.8	124.6
Oct. 15.....	128.9	139.3	148.5	( <sup>1</sup> )	110.5	146.9	124.7
Nov. 15.....	129.3	140.1	148.7	( <sup>1</sup> )	110.1	147.6	124.6
Dec. 15.....	129.9	141.4	149.4	108.3	110.3	148.3	124.8
1946:							
Jan. 15.....	129.9	141.0	149.7	( <sup>1</sup> )	110.8	148.8	125.4
Feb. 15.....	129.6	139.6	150.5	( <sup>1</sup> )	111.0	149.7	125.6
Mar. 15.....	130.2	140.1	153.1	108.4	110.5	150.2	125.9
Apr. 15.....	131.1	141.7	154.5	( <sup>1</sup> )	110.4	152.0	126.7
May 15.....	131.7	142.6	155.7	( <sup>1</sup> )	110.3	153.7	127.2
June 15.....	133.3	145.6	157.2	108.5	110.5	156.1	127.9
July 15.....	141.2	165.7	158.7	( <sup>1</sup> )	113.3	157.9	128.2
Aug. 15.....	144.1	171.2	161.2	108.7	113.7	160.0	129.8
Sept. 15.....	145.9	174.1	165.9	108.8	114.4	165.6	129.9
Oct. 15.....	148.6	180.0	168.1	( <sup>1</sup> )	114.4	168.5	131.0
Nov. 15.....	152.2	187.7	171.0	( <sup>1</sup> )	114.8	171.0	132.5
Dec. 15.....	153.3	185.9	176.5	( <sup>1</sup> )	115.5	177.1	136.1
1947: Jan. 15.....	153.3	183.8	179.0	108.8	117.3	179.1	137.1
Feb. 15.....	153.2	182.3	181.5	108.9	117.5	180.8	137.4
Mar. 15.....	156.3	189.5	184.3	109.0	117.6	182.3	138.2

<sup>1</sup> Rents not surveyed in this month.

## Retail Prices of Food in March 1947

RETAIL PRICES OF FOOD in March 1947 in relation to those in selected preceding periods are shown in the accompanying tables.

TABLE 1.—Percent change in retail prices of food in 56 large cities combined, by commodity groups, in specified periods

Commodity group	Feb. 15, 1947, to Mar. 15, 1947	Mar. 15, 1946, to Mar. 15, 1947	Aug. 15, 1945, to Mar. 15, 1947	Jan. 15, 1941, to Mar. 15, 1947	Aug. 15, 1939, to Mar. 15, 1947
All foods.....	3.9	35.3	34.5	93.8	102.7
Cereals and bakery products.....	2.8	34.3	35.7	56.1	58.6
Meats.....	5.5	59.1	57.5	105.3	116.9
Beef and veal.....	2.7	64.9	64.6	78.3	95.9
Pork.....	13.4	92.6	92.9	152.3	146.8
Lamb.....	2.6	53.1	53.7	112.5	112.2
Chickens.....	1.0	18.7	13.4	83.4	88.5
Fish, fresh and canned.....	2.8	16.8	22.1	124.1	167.1
Dairy products.....	2.3	36.9	40.6	78.4	101.4
Eggs.....	2.8	25.7	1.9	79.4	92.6
Fruits and vegetables.....	4.1	8.8	8.8	113.9	116.0
Fresh.....	5.3	1.6	1.6	113.5	114.9
Canned.....	.2	33.4	32.7	89.2	88.8
Dried.....	.5	60.6	60.9	172.4	200.4
Beverages.....	2.2	49.6	49.9	105.6	96.9
Fats and oils.....	8.8	74.0	76.7	172.9	159.3
Sugar and sweets.....	.3	34.9	41.1	87.4	86.8

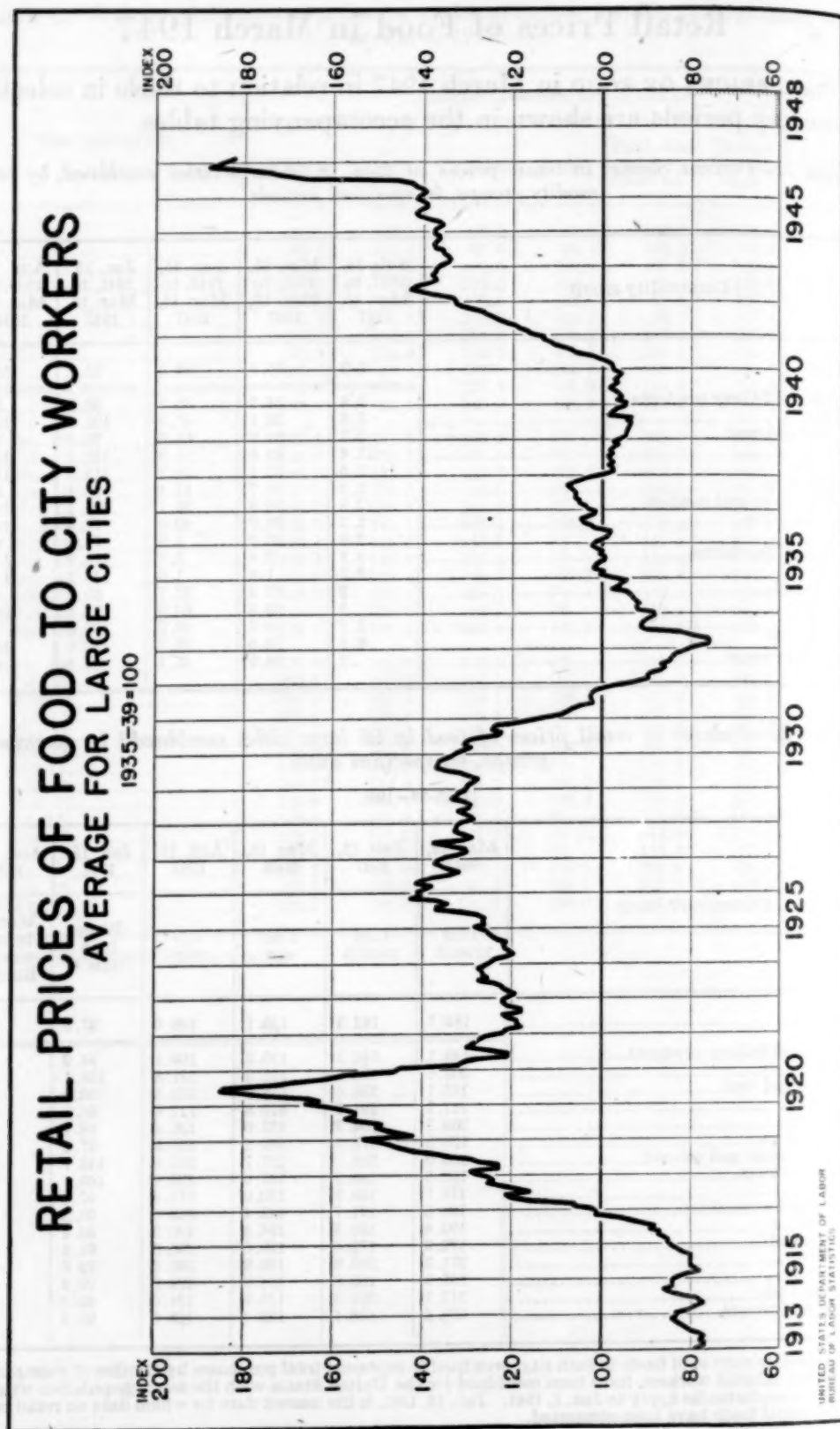
TABLE 2.—Indexes of retail prices of food in 56 large cities combined,<sup>1</sup> by commodity groups, on specified dates

[1935-39=100]

Commodity group	Mar. 15, 1947	Feb. 15, 1947	Mar. 15, 1946	Aug. 15, 1945	Jan. 15, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ- day	Wage base date <sup>2</sup>	Month before war in Europe
All foods.....	189.5	182.3	140.1	140.9	97.8	93.5
Cereals and bakery products.....	148.1	144.1	110.3	109.1	94.9	93.4
Meats.....	207.6	196.7	131.3	131.8	101.1	95.7
Beef and veal.....	195.1	190.0	118.3	118.5	109.4	99.6
Pork.....	217.2	191.6	112.8	112.6	86.1	88.0
Lamb.....	209.7	204.3	137.0	136.4	98.7	98.8
Chickens.....	178.3	176.5	150.2	157.3	97.2	94.6
Fish, fresh and canned.....	266.0	258.7	227.7	217.8	118.7	99.6
Dairy products.....	187.5	183.2	137.0	133.4	105.1	93.1
Eggs.....	174.7	169.9	139.0	171.4	97.4	90.7
Fruits and vegetables.....	199.6	191.7	183.4	183.5	93.3	92.4
Fresh.....	199.4	189.3	196.3	196.2	93.4	92.8
Canned.....	172.9	172.6	129.6	130.3	91.4	91.6
Dried.....	271.3	269.9	168.9	168.6	99.6	1.3
Beverages.....	186.9	182.8	124.9	124.7	90.9	14.9
Fats and oils.....	219.1	201.3	125.9	124.0	80.3	84.5
Sugar and sweets.....	178.6	178.1	132.4	126.6	95.3	95.6

<sup>1</sup> Aggregate costs of 61 foods in each city, weighted to represent total purchases by families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights.

<sup>2</sup> The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.





# RETAIL PRICES FOR GROUPS OF FOOD AVERAGE FOR LARGE CITIES

1935 - 39 = 100

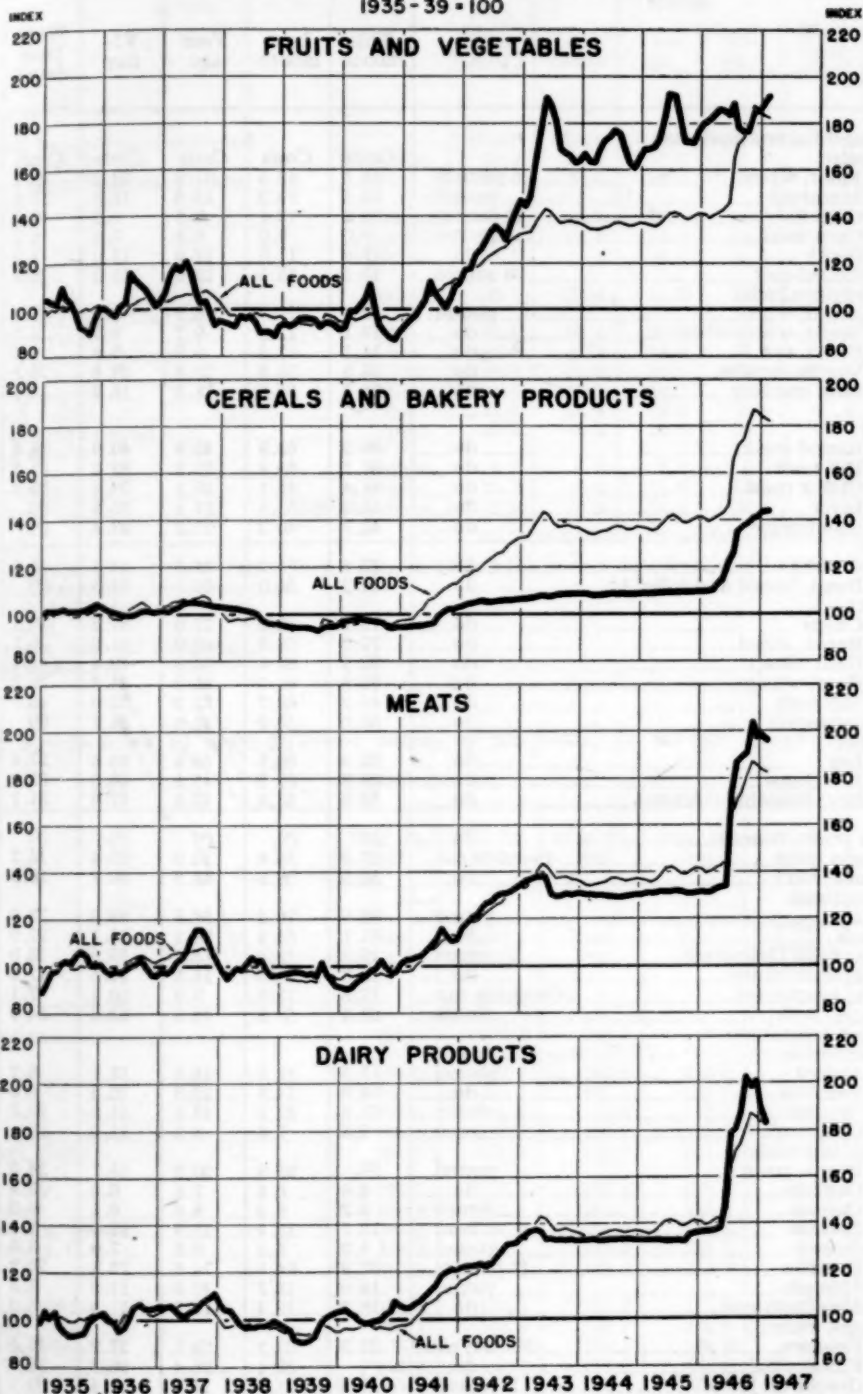


TABLE 3.—Average retail prices of 70 foods in 56 large cities combined, March 1947, compared with earlier months

Article	Mar. 15, 1947	Feb. 15, 1947	Mar. 15, 1946	Aug. 15, 1945	Jan. 15, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ- day	Wage base date <sup>1</sup>	Month before war in Europe
<b>Cereals and bakery products:</b>						
<b>Cereals:</b>						
Flour, wheat.....5 pounds.....	Cents 44.5	Cents 42.5	Cents 31.9	Cents 32.2	Cents 20.7	Cents 17.9
Macaroni.....pound.....	19.2	19.2	15.6	15.8	13.8	14.0
Corn flakes.....11 ounces.....	12.3	12.1	9.3	9.2	9.8	9.7
Corn meal.....pound.....	9.0	9.0	6.5	6.4	4.2	4.0
Rice.....do.....	17.0	17.0	12.9	13.0	7.9	7.5
Rolled oats.....20 ounces.....	13.5	13.4	13.0	13.0	8.9	8.9
<b>Bakery products:</b>						
Bread, white.....pound.....	12.1	11.7	8.9	8.8	7.8	7.8
Bread, whole-wheat.....do.....	13.1	12.6	9.7	9.7	8.7	8.8
Bread, rye.....do.....	14.1	13.5	9.9	9.9	9.0	9.2
Vanilla cookies.....do.....	39.0	38.6	29.6	28.6	25.1	( <sup>2</sup> )
Soda crackers.....do.....	24.7	24.6	18.6	18.9	15.0	14.8
<b>Meats:</b>						
<b>Beef:</b>						
Round steak.....do.....	68.2	65.8	40.8	40.9	38.6	36.4
Rib roast.....do.....	56.5	55.4	33.3	33.0	31.5	28.9
Chuck roast.....do.....	46.4	45.1	28.3	28.4	25.2	22.5
Liver.....do.....	55.3	53.6	37.4	36.9	( <sup>3</sup> )	( <sup>3</sup> )
Hamburger.....do.....	40.3	40.2	27.2	27.4	( <sup>3</sup> )	( <sup>3</sup> )
<b>Veal:</b>						
Cutlets.....do.....	77.8	75.2	44.6	44.4	45.2	42.5
Roast, boned and rolled <sup>1</sup> .....do.....	58.2	56.0	35.8	34.3	( <sup>3</sup> )	( <sup>3</sup> )
<b>Pork:</b>						
Chops.....do.....	72.1	63.2	37.0	37.2	29.1	30.9
Bacon, sliced.....do.....	77.0	68.9	40.9	41.2	30.1	30.4
Ham, sliced.....do.....	92.9	83.6	50.8	49.4	45.1	46.4
Ham, whole.....do.....	70.9	61.7	35.9	34.5	26.2	27.4
Salt pork.....do.....	44.2	38.7	22.2	22.0	16.7	15.4
Sausage <sup>1</sup> .....do.....	53.6	50.0	38.6	38.7	( <sup>3</sup> )	( <sup>3</sup> )
<b>Lamb:</b>						
Leg.....do.....	62.0	60.8	40.4	40.5	27.8	27.6
Rib chops.....do.....	69.9	67.6	45.9	46.0	35.0	36.7
Poultry: Roasting chickens.....do.....	53.8	53.3	45.5	47.6	31.1	30.9
<b>Fish:</b>						
Fish (fresh, frozen).....do.....	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Salmon, pink.....16-ounce can.....	37.9	36.6	24.9	23.4	15.7	12.8
Salmon, red <sup>1</sup> .....do.....	59.2	58.8	43.3	39.7	26.4	23.1
<b>Dairy products:</b>						
Butter.....pound.....	82.9	76.2	54.8	49.9	38.0	30.7
Cheese.....do.....	61.1	61.4	38.1	35.7	27.0	24.7
Milk, fresh (delivered).....quart.....	19.3	19.4	15.4	15.6	13.0	12.0
Milk, fresh (store).....do.....	18.3	18.6	14.5	14.5	11.9	11.0
Milk, evaporated.....14½-ounce can.....	13.8	13.9	9.9	10.1	7.1	6.7
Eggs: Eggs, fresh.....dozen.....	60.6	58.9	48.3	60.6	34.9	32.0
<b>Fruits and vegetables:</b>						
<b>Fresh fruits:</b>						
Apples.....pound.....	13.5	12.9	14.5	13.1	5.2	4.4
Bananas.....do.....	14.9	14.8	10.9	10.5	6.6	6.1
Oranges.....dozen.....	43.4	37.9	44.8	51.3	27.3	31.5
Grapefruit <sup>1</sup> .....each.....	7.6	7.6	8.3	11.0	( <sup>5</sup> )	( <sup>5</sup> )
<b>Fresh vegetables:</b>						
Beans, green.....pound.....	( <sup>6</sup> )	25.3	20.2	18.7	14.0	7.2
Cabbage.....do.....	6.6	6.6	7.6	6.0	3.4	3.9
Carrots.....bunch.....	9.2	9.0	8.6	9.1	6.0	4.6
Lettuce.....head.....	12.7	15.4	11.9	12.5	8.4	8.4
Onions.....pound.....	5.2	5.0	8.8	7.9	3.6	3.6
Potatoes.....15 pounds.....	67.9	64.0	74.6	73.8	29.2	34.4
Spinach.....pound.....	14.9	13.7	10.9	11.6	7.3	7.5
Sweet potatoes.....do.....	10.2	10.4	10.9	11.4	5.0	5.5
<b>Canned fruits:</b>						
Peaches.....No. 2½ can.....	32.3	32.2	28.1	27.2	16.5	17.1
Pineapple.....do.....	( <sup>7</sup> )	32.1	26.4	26.3	20.9	21.0
Grapefruit juice.....No. 2 can.....	11.0	11.2	14.1	14.4	( <sup>8</sup> )	( <sup>8</sup> )
<b>Canned vegetables:</b>						
Beans, green.....do.....	16.5	16.0	13.6	13.2	10.0	10.0
Corn.....do.....	18.1	18.1	14.8	14.8	10.7	10.4
Peas.....do.....	16.1	15.9	13.6	13.2	13.2	13.6
Tomatoes.....do.....	21.0	21.1	12.9	12.2	8.4	8.6
Soup, vegetable <sup>1</sup> .....11-ounce can.....	14.3	14.3	13.3	13.2	( <sup>9</sup> )	( <sup>9</sup> )

See footnotes at end of table.

TABLE 3.—Average retail prices of 70 foods in 56 large cities combined, March 1947, compared with earlier months—Continued

Article	Mar. 15, 1947	Feb. 15, 1947	Mar. 15, 1946	Aug. 15, 1945	Jan. 15, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ- day	Wage base date <sup>1</sup>	Month before war in Europe
<b>Fruits and vegetables—Continued</b>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Dried fruits: Prunes.....pound..	26.3	26.1	17.6	17.4	9.6	8.8
Dried vegetables: Navy beans.....do..	21.0	21.0	11.7	11.5	6.5	5.8
<b>Beverages:</b>						
Coffee.....do..	47.0	45.9	30.4	30.5	20.7	22.3
Tea..... $\frac{3}{4}$ pound..	24.0	24.1	24.0	24.2	17.6	17.2
Cocoa <sup>2</sup> ..... $\frac{1}{2}$ pound..	13.5	13.4	10.4	10.4	9.1	8.6
<b>Fats and oils:</b>						
Lard.....pound..	38.7	32.4	18.6	18.8	9.3	9.9
Shortening other than lard:						
In cartons.....do..	39.8	37.1	20.1	20.0	11.3	11.7
In other containers.....do..	46.0	44.3	24.8	24.5	18.3	20.2
Salad dressing.....pint..	40.3	39.3	28.2	24.2	20.1	( <sup>3</sup> )
Oleomargarine.....pound..	43.9	41.9	24.1	23.9	15.6	16.5
Peanut butter.....do..	35.5	35.4	33.2	28.6	17.9	17.9
Oil, cooking or salad <sup>4</sup> .....pint..	49.3	48.3	30.6	30.5	( <sup>5</sup> )	( <sup>5</sup> )
<b>Sugar and sweets:</b>						
Sugar.....pound..	9.7	9.6	7.1	6.7	5.1	5.2
Corn sirup.....24 ounces..	18.3	18.6	15.6	15.8	13.6	13.7
Molasses <sup>1</sup> .....16 fluid ounces..	21.0	21.0	20.3	20.4	17.3	17.6

<sup>1</sup> The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.

<sup>2</sup> Not included in index.

<sup>3</sup> Not priced.

<sup>4</sup> Composite price not computed.

<sup>5</sup> Not available.

TABLE 4.—Indexes of average retail prices of all foods, by cities,<sup>1</sup> on specified dates

[1935-39=100]

City	Mar. 15, 1947	Feb. 15, 1947	Mar. 15, 1946	Aug. 15, 1945	Jan. 15, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ- day	Wage base date <sup>1</sup>	Month before war in Europe
United States.....	189.5	182.3	140.1	140.9	97.8	93.5
Atlanta, Ga.....	199.6	187.5	137.7	142.1	94.3	92.5
Baltimore, Md.....	199.3	189.7	147.1	149.1	97.9	94.7
Birmingham, Ala.....	202.9	193.5	142.8	147.5	96.0	90.7
Boston, Mass.....	180.0	172.7	134.1	135.7	95.2	93.5
Bridgeport, Conn.....	184.6	178.5	136.9	137.4	96.5	93.2
Buffalo, N. Y.....	179.7	173.3	136.4	138.4	100.2	94.5
Butte, Mont.....	184.5	175.1	135.7	138.7	98.7	94.1
Cedar Rapids, Iowa <sup>1</sup> .....	195.6	190.0	144.1	145.3	95.9	.....
Charleston, S. C.....	189.2	181.5	138.3	139.7	95.9	95.1
Chicago, Ill.....	190.8	183.2	138.7	139.2	98.2	92.3
Cincinnati, Ohio.....	191.3	182.8	136.9	140.0	96.5	90.4
Cleveland, Ohio.....	195.1	186.9	142.7	145.6	99.2	93.6
Columbus, Ohio.....	177.0	170.0	131.2	134.0	93.4	88.1
Dallas, Tex.....	191.4	186.5	138.3	138.9	92.6	91.7
Denver, Colo.....	191.4	185.7	139.9	139.3	94.8	92.7

See footnotes at end of table.



TABLE 4.—*Indexes of average retail prices of all foods, by cities,<sup>1</sup> on specified dates—Con.*  
[1935-39=100]

City	Mar. 15, 1947	Feb. 15, 1947	Mar. 15, 1946	Aug. 15, 1945	Jan. 15, 1941	Aug. 15, 1939
	This month	Last month	Year ago	VJ- day	Wage base date <sup>2</sup>	Month before war in Europe
Detroit, Mich.	183.0	175.1	137.0	138.4	97.0	90.6
Fall River, Mass.	186.8	178.2	133.8	134.1	97.5	95.4
Houston, Tex.	196.3	190.6	139.3	141.2	102.6	97.8
Indianapolis, Ind.	187.8	179.9	136.0	137.7	98.2	90.7
Jackson, Miss. <sup>3</sup>	203.3	199.0	146.6	151.2	105.3	-----
Jacksonville, Fla.	198.8	189.3	146.5	152.0	98.8	95.8
Kansas City, Mo.	182.3	176.6	133.6	135.4	92.4	91.5
Knoxville, Tenn. <sup>3</sup>	225.2	213.9	159.1	160.6	97.1	-----
Little Rock, Ark.	190.8	182.9	137.9	140.4	95.6	94.0
Los Angeles, Calif.	195.5	194.1	148.9	145.9	101.8	94.6
Louisville, Ky.	183.9	176.6	132.9	135.0	95.5	92.1
Manchester, N. H.	186.8	177.5	136.4	136.4	96.6	94.9
Memphis, Tenn.	205.1	198.6	148.8	150.9	94.2	89.7
Milwaukee, Wis.	186.9	180.1	136.5	139.4	95.9	91.1
Minneapolis, Minn.	181.3	174.6	131.8	133.2	99.0	95.0
Mobile, Ala.	199.6	188.7	147.7	152.3	97.9	95.5
Newark, N. J.	185.3	176.5	140.8	143.4	98.8	95.6
New Haven, Conn.	181.4	174.1	137.0	137.2	95.7	93.7
New Orleans, La.	204.3	199.1	151.5	156.5	101.9	97.6
New York, N. Y.	189.5	182.1	142.3	141.7	99.5	95.8
Norfolk, Va.	199.8	191.6	144.5	146.1	95.8	93.6
Omaha, Nebr.	183.2	178.3	132.5	131.8	97.9	92.3
Peoria, Ill.	197.2	183.9	143.9	145.9	99.0	93.4
Philadelphia, Pa.	185.8	177.2	139.0	138.9	95.0	93.0
Pittsburgh, Pa.	192.0	185.6	141.4	141.3	98.0	92.5
Portland, Maine	184.8	174.3	134.8	135.7	95.3	95.9
Portland, Oreg.	198.1	191.2	149.9	150.9	101.7	96.1
Providence, R. I.	189.8	180.5	139.9	141.6	96.3	93.7
Richmond, Va.	188.8	182.1	136.5	138.3	93.7	92.2
Rochester, N. Y.	180.3	174.3	135.9	137.8	99.9	92.3
St. Louis, Mo.	198.9	188.4	142.6	144.0	99.2	93.8
St. Paul, Minn.	179.1	172.3	131.1	132.1	98.6	94.3
Salt Lake City, Utah.	186.8	184.1	142.5	143.9	97.5	94.6
San Francisco, Calif.	199.5	195.4	148.3	147.1	99.6	93.8
Savannah, Ga.	213.1	203.1	154.7	157.5	100.5	96.7
Scranton, Pa.	188.9	182.6	141.8	141.3	97.5	92.1
Seattle, Wash.	194.3	187.4	145.6	145.8	101.0	94.5
Springfield, Ill.	202.3	194.5	144.1	146.1	96.2	94.1
Washington, D. C.	190.3	181.3	141.3	141.7	97.7	94.1
Wichita, Kans. <sup>3</sup>	196.6	190.1	148.0	149.8	97.2	-----
Winston-Salem, N. C. <sup>3</sup>	199.2	189.6	141.5	143.4	93.7	-----

<sup>1</sup> Aggregate costs of 61 foods in each city, weighted to represent total purchases by families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights.

<sup>2</sup> The wage formulas apply to Jan. 1, 1941. Jan. 15, 1941, is the nearest date for which data on retail prices of individual foods have been computed.

<sup>3</sup> June 1940=100.

TABLE 5.—*Indexes of retail food prices in 56 large cities combined, 1913 to March 1947*

[1935-39=100]

Year	All- foods index	Year	All- foods index	Year and month	All- foods index	Year and month	All- foods index
1913.....	79.9	1927.....	132.3	1941.....	105.5	1946—Con.	
1914.....	81.8	1928.....	130.8	1942.....	123.9	July.....	165.7
1915.....	80.9	1929.....	132.5	1943.....	138.0	August.....	171.2
1916.....	90.8	1930.....	126.0	1944.....	136.1	September.....	174.1
1917.....	116.9	1931.....	103.9	1945.....	139.1	October.....	180.0
1918.....	134.4	1932.....	86.5	1946.....	159.6	November.....	187.7
1919.....	149.8	1933.....	84.1	1946		December.....	185.9
1920.....	168.8	1934.....	93.7	1946		1947	
1921.....	128.3	1935.....	100.4	January.....	141.0	January.....	183.8
1922.....	119.9	1936.....	101.3	February.....	139.6	February.....	182.3
1923.....	124.0	1937.....	105.3	March.....	140.1	March.....	189.5
1924.....	122.8	1938.....	97.8	April.....	141.7		
1925.....	132.9	1939.....	95.2	May.....	142.6		
1926.....	137.4	1940.....	96.6	June.....	145.6		

### Wholesale Prices in March 1947

LED BY ADVANCES for farm products, average primary market prices rose 3.5 percent from February to March 1947. This advance brought the Bureau's general index of commodity prices in primary markets to 149.6 percent of the 1926 average, 37.4 percent above a year earlier and about double the level immediately preceding the beginning of the war. This was the highest level since September 1920 and about 11 percent below the record peak of May 1920.

The higher average price level in March over that of February was the result of rapid advances during late February and early March there were partly offset by stable or declining prices during the latter half of March. Weekly reports for April indicate continued declines in the general level of primary market prices.

While the largest advances during March were for farm products, nonagricultural commodities also shared in the increase, rising more than 2 percent on the average. Groups showing more than 1 percent increase were farm products up 7.2 percent, foods 3.5 percent, fuel and lighting materials 3 percent, chemicals and allied products 2.2 percent, building materials 1.5 percent, metals and metal products 1.4 percent, textile products 1.2 percent, housefurnishing goods 1 percent, and miscellaneous commodities 4 percent.

The 7.2 percent advance for farm products was a result of unfavorable weather, damaged crops, transportation bottlenecks, and increased demand from foreign countries for American products. Grain averages were nearly 19 percent higher in March than in February as low market supplies, bad weather, and foreign demand pushed prices for some grains close to all-time highs. In the latter part of

the month, prices declined from these very high levels but the markets still were strong. Livestock quotations rose 7 percent in March with hogs reaching an all-time high and selling for a short time at higher prices than steers. Spot market prices for cotton rose above 36 cents a pound for the first time since the October peak, influenced by strong export demand for cotton goods. Commodity Credit Corporation selling prices for domestic raw wool were raised in March to meet parity requirements. Argentina wool continued to decline. Generally higher prices were reported, in March, for fresh fruits and vegetables.

The advance of 3.5 percent in the group index for foods reflected increases for most types of foods except dairy products. Fresh milk prices declined in some areas although certain Northeastern producers suspended the milk marketing agreements, under which they had been operating, in order to avoid taking large price declines which would have been required. Average prices for butter and cheese were slightly higher in March than in February. Flour quotations rose nearly 14 percent on the average, stimulated by government buying for export. Canned and dried fruits and vegetables showed weakness during the month as a result of the approach of the new season. Meats were generally higher and there were advances for other foods including coffee, eggs, fats and oils.

Hides and leather products rose 0.5 percent on the average with increases for domestic hides and skins and some types of leather. Market uncertainties, however, lowered quotations for some types of imported skins and for sole leather.

Continued advances in spot market prices of cotton goods were reported during March. Relatively limited supplies raised prices of worsted materials. Average prices for silk in March were below those in February, reflecting lower prices obtained in the February auction.

Prices for crude petroleum and refined petroleum products rose sharply in March, the fifth price increase since decontrol of these commodities. Oil companies stated publicly that these price advances were in part designed to encourage exploratory drilling. There were small advances during the month for anthracite, bituminous coal and by-product coke.

Average prices for metals and metal products rose in March as advances for iron and steel and nonferrous metals offset decreases for farm machinery and trucks. Price advances for pig-iron reflected a greater demand for this material caused by sharp increases in scrap prices. In addition, there were advances for gray-iron castings, and some types of hand tools. The substantial rise for nonferrous metals reflected continuing shortage and high demand. The small declines

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for farm machinery and trucks represent reductions by one company, partly wiping out price advances earlier in the year.

Price advances for cement and most types of lumber were primarily responsible for the rise of 1.5 percent in the group index for building materials. Higher prices for lead pigments, reflecting increased material costs, and for certain other paint materials brought the subgroup index for paint and paint materials to approximately the all-time high level reached in 1920. Price rises also were reported for stock millwork in short supply, cast iron pipe, and prepared roofing.

Further advances for oils and fats and fatty acids and higher prices for organic fertilizer materials were responsible for the increase in the index for chemicals and allied products. Quotations for heavy chemicals generally were stable during the month. Higher material and labor costs were reflected in price advances for some types of furniture and durable housefurnishings.

Sharp advances for cattle feed, caused by bad weather and foreign demand for grains, and a continuation of price advances for paper and pulp caused the substantial advance in the group index for miscellaneous commodities. Soap prices were also higher in March.

TABLE 1.—*Indexes of wholesale prices by groups and subgroups of commodities, March 1947, compared with previous months*

Group and subgroup	Indexes (1926=100)				Percent changes to March 1947 from—		
	Mar. 1947	Feb. 1947	Mar. 1946	Aug. 1939	Feb. 1947	Mar. 1946	Aug. 1939
All commodities.....	149.6	144.6	108.9	75.0	+3.5	+37.4	+99.5
Farm products.....	182.6	170.4	133.4	61.0	+7.2	+36.9	+199.3
Grains.....	203.3	171.1	136.7	51.5	+18.8	+48.7	+294.8
Livestock and poultry.....	216.0	201.5	133.5	66.0	+7.2	+61.8	+227.3
Other farm products.....	155.8	150.5	131.4	60.1	+3.5	+18.6	+159.2
Foodst.....	167.6	162.0	109.4	67.2	+3.5	+53.2	+149.4
Dairy products.....	157.6	161.8	116.1	67.9	-2.6	+35.7	+132.1
Cereal products.....	150.4	141.3	96.2	71.9	+6.4	+56.3	+109.2
Fruits and vegetables.....	141.5	134.2	133.1	58.5	+5.4	+6.3	+141.9
Meats.....	207.3	199.5	109.6	73.7	+3.9	+89.1	+181.3
Other foods.....	152.8	146.0	97.7	60.3	+4.7	+56.4	+153.4
Hides and leather products.....	174.6	173.8	119.8	92.7	+5	+45.7	+88.3
Shoes.....	171.5	171.5	128.6	100.8	0	+33.4	+70.1
Hides and skins.....	192.2	191.4	117.6	77.2	+4	+63.4	+149.0
Leather.....	183.7	181.1	104.0	84.0	+1.4	+76.6	+118.7
Other leather products.....	137.7	137.1	115.2	97.1	+4	+19.5	+41.8
Textile products.....	139.6	138.0	104.7	67.8	+1.2	+33.3	+105.9
Clothing.....	133.0	132.7	109.5	81.5	+2	+21.5	+63.2
Cotton goods.....	196.6	193.7	132.9	65.5	+1.5	+47.9	+200.2
Hosiery and underwear.....	100.8	100.0	75.5	61.5	+8	+33.5	+63.9
Rayon.....	37.0	37.0	30.2	28.5	0	+22.5	+29.8
Silk.....	73.2	80.2	—	44.3	-8.7	—	+65.2
Woolen and worsted goods.....	127.5	121.9	112.7	75.5	+4.6	+13.1	+68.9
Other textile products.....	175.1	170.1	109.6	63.7	+2.9	+59.8	+174.9
Fuel and lighting materials.....	100.8	97.9	85.0	72.6	+3.0	+18.6	+38.8
Anthracite.....	114.9	114.8	104.0	72.1	+1	+10.5	+59.4
Bituminous coal.....	143.6	143.3	125.2	96.0	+2	+14.7	+49.6
Coke.....	155.2	155.1	134.9	104.2	+1	+15.0	+48.9
Electricity.....	(2)	(2)	68.3	75.8	—	—	—
Gas.....	(2)	84.3	79.6	86.7	—	—	—
Petroleum and products.....	81.7	76.6	61.2	51.7	+6.7	+33.8	+58.0

See footnotes at end of table.

TABLE 1.—Indexes of wholesale prices by groups and subgroups of commodities, March 1947, compared with previous month—Continued

Group and subgroup	Indexes (1926=100)				Percent changes to March 1947 from—		
	Mar. 1947	Feb. 1947	Mar. 1946	Aug. 1939	Feb. 1947	Mar. 1946	Aug. 1939
Metals and metal products.....	140.6	138.6	108.4	93.2	+1.4	+29.7	+50.9
Agricultural implements.....	116.8	117.6	98.5	93.5	-.7	+18.6	+24.9
Farm machinery.....	118.2	119.0	99.6	94.7	-.7	+18.7	+24.8
Iron and steel.....	126.9	125.0	107.0	95.1	+1.5	+18.6	+33.4
Motor vehicles.....	151.2	151.3	112.8	92.5	-.1	+34.0	+62.5
Nonferrous metals.....	139.0	131.3	86.1	74.6	+5.9	+61.4	+86.3
Plumbing and heating.....	117.9	117.1	95.1	79.3	+7	+24.0	+48.7
Building materials.....	177.5	174.8	124.9	89.6	+1.5	+42.1	+98.1
Brick and tile.....	132.4	132.3	117.4	90.5	+1	+12.8	+46.3
Cement.....	112.3	109.9	102.3	91.3	+2.2	+9.8	+23.0
Lumber.....	269.3	263.6	167.6	90.1	+2.2	+60.7	+198.9
Paint and paint materials.....	176.1	173.9	107.8	82.1	+1.3	+63.4	+114.5
Plumbing and heating.....	117.9	117.1	95.1	79.3	+7	+24.0	+48.7
Structural steel.....	127.7	127.7	120.1	107.3	0	+6.3	+19.0
Other building materials.....	143.5	141.5	112.3	89.5	+1.4	+27.8	+60.2
Chemicals and allied products.....	132.2	129.3	96.0	74.2	+2.2	+37.7	+78.2
Chemicals.....	114.5	113.8	97.0	83.8	+6	+18.0	+36.6
Drugs and pharmaceuticals.....	182.7	182.5	111.7	77.1	+1	+63.6	+137.0
Fertilizer materials.....	101.8	99.2	81.9	65.5	+2.6	+24.3	+53.4
Mixed fertilizer.....	96.3	96.3	86.6	73.1	0	+11.2	+31.7
Oils and fats.....	231.5	214.3	102.1	40.6	+8.0	+126.7	+470.2
Housefurnishings goods.....	125.8	124.6	106.9	85.6	+1.0	+17.7	+47.0
Furnishings.....	131.4	129.6	110.9	90.0	+1.4	+18.5	+46.0
Furniture.....	120.0	119.5	102.9	81.1	+4	+16.6	+48.0
Miscellaneous.....	115.3	110.9	95.6	73.3	+4.0	+20.6	+57.3
Automobile tires and tubes.....	73.0	73.0	73.0	60.5	0	0	+20.7
Cattle feed.....	238.4	178.6	159.6	68.4	+33.5	+49.4	+248.3
Paper and pulp.....	145.1	143.4	113.7	80.0	+1.2	+27.6	+81.4
Rubber, crude.....	52.9	52.9	46.2	34.9	0	+14.5	+51.6
Other miscellaneous.....	122.2	118.8	98.9	81.3	+2.9	+23.6	+50.3
Raw materials.....	163.2	154.9	120.5	66.5	+5.4	+35.4	+145.4
Semimanufactured articles.....	145.9	142.1	100.4	74.5	+2.7	+45.3	+95.8
Manufactured products.....	143.5	139.9	104.5	79.1	+2.6	+37.3	+81.4
All commodities other than farm products.....	142.2	138.8	103.4	77.9	+2.4	+37.5	+82.5
All commodities other than farm products and foods.....	131.3	128.6	102.2	80.1	+2.1	+28.5	+63.9

<sup>1</sup> Includes current motor vehicle prices.

*Motor vehicles.*—The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the announcement made in the September release the Bureau introduced current prices for motor vehicles in the October calculations. During the war, motor vehicles were not produced for general civilian sales and the Bureau carried April 1942 prices forward in each computation through September 1946.

If April 1942 prices of motor vehicles had been used after September 1946, the indexes for the groups of which motor vehicles is a component would have been:

	Indexes (1926=100)		
	March	February	January
All commodities.....	147.6	142.6	139.1
Metals and metal products.....	126.3	124.3	123.7
Manufactured products.....	140.2	136.7	133.5
All commodities other than farm products.....	139.8	136.3	133.7
All commodities other than farm products and foods.....	128.1	125.5	124.4

These special indexes will be published as long as the need for them continues.

<sup>2</sup> Not available.

<sup>3</sup> Revised.

*Index Numbers by Commodity Groups, 1926 to March 1947*

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1946, and by months from March 1946 to March 1947 are shown in table 2.

TABLE 2.—Index numbers of wholesale prices by groups of commodities

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and light-ing materials	Metals and metal products	Building materials	Chem-icals and allied products	House-fur-nish-ing goods	Mis-cella-neous	All com-modi-ties
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929.....	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932.....	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933.....	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936.....	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937.....	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938.....	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939.....	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940.....	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941.....	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	87.3
1942.....	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	98.8
1943.....	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	103.1
1944.....	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	104.0
1945.....	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	105.8
1946.....	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3	121.1
<i>1946</i>											
March.....	133.4	109.4	119.8	104.7	85.0	108.4	124.9	96.0	106.9	95.6	108.9
April.....	135.4	110.8	119.8	107.9	86.1	108.8	126.5	96.1	107.5	95.7	110.2
May.....	137.5	111.5	120.4	108.8	86.1	109.4	127.8	96.5	108.3	97.0	111.0
June.....	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	112.9
July.....	157.0	140.2	141.2	118.1	90.3	113.3	132.1	99.3	111.9	101.3	124.7
August.....	161.0	149.0	138.9	124.0	94.4	114.0	132.7	98.4	112.6	102.0	129.1
September.....	154.3	131.9	141.6	125.7	94.3	114.2	133.8	98.4	113.6	102.1	124.0
October.....	165.3	157.9	142.4	128.6	94.2	125.8	134.8	99.9	115.3	104.0	134.1
November.....	169.8	165.4	172.5	131.6	94.5	130.2	145.5	118.9	118.2	106.5	139.7
December.....	168.1	160.1	176.7	134.7	96.1	134.7	157.8	125.7	120.2	108.9	140.9
<i>1947</i>											
January.....	165.0	156.2	175.1	136.6	97.7	138.0	169.7	128.1	123.3	110.3	141.5
February.....	170.4	162.0	173.8	138.0	97.9	138.6	174.8	129.3	124.6	110.9	144.6
March.....	182.6	167.6	174.6	139.6	100.8	140.6	177.5	132.2	125.8	115.3	149.6

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was shown on pages 8 and 9 of Wholesale Prices, 1944 (Bulletin No. 870).



TABLE 3.—Index numbers of wholesale prices by special groups of commodities  
[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods	Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926.....	100.0	100.0	100.0	100.0	100.0	1946					
1929.....	97.5	93.9	94.5	93.3	91.6	March.....	120.5	100.4	104.5	103.4	102.2
1932.....	55.1	59.3	70.3	68.3	70.2	April.....	122.2	101.1	105.5	104.5	103.3
1933.....	56.5	65.4	70.5	69.0	71.2	May.....	123.6	101.9	106.1	105.1	103.9
1936.....	79.9	75.9	82.0	80.7	79.6	June.....	126.3	105.7	107.3	106.7	105.6
1937.....	84.8	85.3	87.2	86.2	85.3	July.....	141.7	110.2	118.9	117.5	109.5
1938.....	72.0	75.4	82.2	80.6	81.7	August.....	145.7	111.9	123.9	121.9	111.6
1939.....	70.2	77.0	80.4	79.5	81.3	September.....	141.4	115.0	117.2	117.2	112.2
1940.....	71.9	79.1	81.6	80.8	83.0	October.....	148.7	118.2	129.6	127.1	115.8
1941.....	83.5	86.9	89.1	88.3	89.0	November.....	153.4	129.1	134.7	132.9	120.7
1942.....	100.6	92.6	98.6	97.0	95.5	December.....	153.2	136.2	135.7	134.8	124.7
1943.....	112.1	92.9	100.1	98.7	96.9	1947					
1944.....	113.2	94.1	100.8	99.6	98.5	January.....	152.1	138.8	136.7	136.1	127.6
1945.....	116.8	95.9	101.8	100.8	99.7	February.....	154.9	142.1	139.9	138.8	128.6
1946.....	134.7	110.8	116.1	114.9	109.5	March.....	163.2	145.9	143.5	142.2	131.3

### Weekly Fluctuations

Weekly changes in wholesale prices by groups of commodities during February and March 1947 are shown by the index numbers in table 4. These indexes are not averaged to obtain an index for the month but are computed only to indicate the fluctuations from week to week.

TABLE 4.—Weekly index numbers of wholesale prices by commodity groups, February and March 1947  
[1926=100]

Commodity group	Mar. 29	Mar. 22	Mar. 15	Mar. 8	Mar. 1	Feb. 22	Feb. 15	Feb. 8	Feb. 1
All commodities.....	149.4	149.0	148.3	148.7	146.4	144.3	143.1	141.7	140.3
Farm products.....	183.8	182.9	184.2	181.8	176.1	171.7	168.9	165.5	164.8
Foods.....	166.5	166.2	166.5	170.7	167.5	162.5	160.9	156.7	154.1
Hides and leather products.....	174.2	174.9	175.7	174.2	174.1	175.8	173.6	172.9	171.0
Textile products.....	138.7	138.7	138.3	137.4	137.0	135.4	135.5	137.7	135.8
Fuel and lighting materials.....	103.5	101.7	98.8	98.8	98.6	98.6	98.6	98.6	98.5
Metals and metal products.....	140.3	140.3	140.2	139.7	138.6	138.4	138.4	138.3	138.3
Building materials.....	177.0	176.7	175.3	175.3	173.0	172.6	172.8	170.6	168.6
Chemicals and allied products.....	132.8	133.0	131.7	130.6	129.3	129.2	128.3	127.6	127.8
Housefurnishing goods.....	126.6	126.6	126.1	126.1	125.5	125.3	123.0	123.0	122.8
Miscellaneous.....	114.9	114.6	113.0	111.9	111.2	110.7	110.0	110.0	109.9
Raw materials.....	165.5	164.3	164.1	162.5	158.9	156.2	154.3	153.1	152.6
Semimanufactured articles.....	145.1	145.1	145.0	144.0	142.7	141.3	141.7	141.3	139.5
Manufactured products.....	143.3	143.1	142.1	143.7	142.0	140.0	139.1	137.5	135.6
All commodities other than farm products.....	141.9	141.6	140.5	141.4	139.9	138.3	137.6	136.5	135.0
All commodities other than farm products and foods.....	131.0	131.3	130.0	129.4	128.7	128.3	128.1	128.1	127.5

# Construction

## Construction Activity, February–April 1947

### *The Housing Program*

NEW PERMANENT NONFARM dwelling units completed in March 1947 totaled 57,100—a slight decline from the 59,800 homes completed in February. This is the first monthly decline of home completions since the beginning of the Veterans Emergency Housing Program, and reflects the drop in the number of new permanent units put under construction which began early last fall and continued throughout the winter. However, completions in March and during the first 3 months of 1947 were over 2½ times the number of units completed in the comparable periods of 1946.

Home builders started 53,400 new permanent units in March 1947, about 28 percent more than in February. In contrast, the 60,400 new permanent dwellings begun in March 1946 represented a 40 percent gain over the previous month. During the first quarter of 1947, 7 percent fewer permanent dwellings were begun than during the preceding quarter and about 2 percent fewer than during the first quarter of 1946. Severe winter weather in many localities during February and early March and resistance to higher building costs are reported to have caused many builders to delay starting new homes.

A survey of local building permits issued for new dwellings in leading cities during March generally showed small gains over February. Key cities in the South and West, such as Los Angeles, Calif.; Fort Worth, Corpūs Christi, and Waco, Tex.; Tacoma, Wash.; Oklahoma City, Okla.; and Atlanta, Ga., registered declines in the number of new dwellings for which building permits were issued. Such important centers as New York City, Los Angeles, Long Beach, Oakland, Chicago, Minneapolis and St. Paul, Milwaukee, Des Moines, Seattle, and Denver showed a lower number of units for which permits were issued in each of the first 3 months of 1947, as compared with the corresponding months of 1946.

TABLE 1.—Estimated number of family dwelling units or equivalent living accommodations <sup>1</sup> started and completed in nonfarm areas, January 1946 to March 1947 <sup>2</sup>

Year and month	Number of units					
	Started			Completed		
	Total	New permanent family dwellings	Other	Total	New permanent family dwellings	Other
1946: Total.....	1,000,700	<sup>3</sup> 670,900	<sup>4</sup> 329,800	657,700	<sup>5</sup> 453,800	<sup>6</sup> 203,900
January.....	49,600	36,100	13,500	24,900	18,700	6,200
February.....	56,100	43,100	13,000	28,000	20,300	7,700
March.....	86,400	60,400	26,000	31,200	22,600	8,600
April.....	97,600	66,100	31,500	35,600	26,400	9,200
May.....	105,600	67,600	38,000	39,900	30,300	9,600
June.....	93,500	63,600	29,900	46,600	34,900	11,700
July.....	107,900	64,300	43,600	54,300	41,000	13,300
August.....	107,100	64,400	42,700	59,300	42,200	17,100
September.....	101,000	57,100	43,900	81,100	49,800	31,300
October.....	80,000	58,100	21,900	85,000	54,500	30,500
November.....	64,000	49,700	14,300	81,600	55,100	26,500
December.....	51,900	40,400	11,500	90,200	58,000	32,200
1947: First 3 months <sup>7</sup> .....	164,400	<sup>8</sup> 137,100	<sup>9</sup> 30,300	270,900	<sup>5</sup> 176,200	<sup>10</sup> 94,700
January.....	54,500	42,100	12,400	94,100	59,300	34,800
February.....	50,200	41,600	8,600	90,400	59,800	30,600
March.....	62,700	53,400	9,300	86,400	57,100	29,300

<sup>1</sup> Excludes military barracks.<sup>2</sup> Source: Estimates for prefabricated units are from the National Housing Agency and Office of the Housing Expediter; privately financed conversion units and Federal reuse (moved and converted) units from the National Housing Agency; and trailers from the Bureau of the Census. All other estimates are from the U. S. Bureau of Labor Statistics.<sup>3</sup> Includes 8,027 permanent units started by New York City Housing Authority, and 37,200 prefabricated units.<sup>4</sup> Covers 64,500 privately financed converted units; 191,000 Federal (Mead-Lanham temporary housing program) reuse units (147,100 family dwellings and 43,900 family-equivalent dormitory units; a family-equivalent unit is defined as one family or two dormitory accommodations; 47,100 trailers; and 27,200 family-equivalent units financed by various State and local public bodies and educational institutions, which are not included under the Federal Mead-Lanham temporary housing program. Of units started in 1946, 600 family-equivalent dormitory units have been abandoned, but it is quite probable that work on these units will be reactivated.<sup>5</sup> Break-down not available for conventional and prefabricated units.<sup>6</sup> Covers 45,300 conversion units, 101,900 reuse units, of which 77,000 were family dwellings, 47,100 trailers, and 9,600 local emergency family-equivalent units.<sup>7</sup> Preliminary.<sup>8</sup> Includes 1,084 permanent units started by New York City Housing Authority. Break-down not available for conventional and prefabricated units.<sup>9</sup> Covers 5,500 conversion units, 14,400 trailers, 8,800 Federal (Mead-Lanham temporary housing program) reuse units, and 1,600 family-equivalent units financed by various States and local public bodies and educational institutions.<sup>10</sup> Covers 15,200 conversion units, 14,400 trailers, 61,300 Federal reuse equivalent units, and 3,800 local emergency family equivalent units.

### Total Construction Activity

Construction activity in April 1947 continued the expansion begun in March, according to preliminary estimates. The sum of 988 million dollars spent for all construction (including minor building repairs) in April was 8 percent over expenditures in March. The addition of 98,000 workers during April brought construction employment to a total of 1,682,000. The dollar volume of new construction under way in April (846 million dollars), three-fourths of which was financed by private builders, was 60 million dollars above March. Privately financed nonresidential building (which is subject to limitation in the



interests of the Veterans Emergency Housing Program) and public housing were the only two major categories to show a decline in expenditures during the month.

TABLE 2.—*Estimated construction employment<sup>1</sup> in the United States, selected months in 1946 and 1947*

Type of project	Estimated employment (in thousands)			
	1947			1946
	April <sup>2</sup>	March <sup>2</sup>	February <sup>2</sup>	April <sup>2</sup>
All types.....	1,682	1,584	1,559	1,686
New construction.....	1,464	1,382	1,362	1,424
Private construction.....	1,125	1,093	1,088	1,200
Residential (nonfarm) building.....	447	435	430	475
Nonresidential building.....	421	434	479	533
Farm construction.....	64	43	22	44
Public utilities.....	193	181	157	148
Public construction <sup>3</sup> .....	339	289	274	224
Residential building.....	36	48	61	23
Nonresidential building <sup>4</sup> .....	60	49	41	62
Reclamation.....	15	14	13	8
River, harbor, and flood control.....	24	22	24	18
Streets and highways.....	116	84	74	62
All other <sup>5</sup> .....	88	72	61	51
Minor building repairs.....	218	202	197	262
Residential.....	66	59	59	90
Nonresidential.....	86	89	91	117
Farm construction.....	66	54	47	55

<sup>1</sup> The estimates cover all persons performing work on, or employed on work directly incident to, new construction, major additions and alterations, and building repairs of the type for which building permits are usually issued. The estimates cover, therefore, construction and special trades contractors' wage-earner and salaried employees whether working at the construction site or in contractors' offices, shops, or yards; working proprietors; firm members; and self-employed persons; as well as employees of nonconstruction establishments performing work at the site of construction operations of the employer or contracted for by the employer and performed for others. The estimates exclude persons engaged in maintenance work. These figures should not be confused with those included in the Bureau's nonagricultural employment series, which covers only employees of construction and special trades contractors, and excludes force-account workers of Federal, State, and local governments, public utilities, and private firms.

<sup>2</sup> Preliminary.

<sup>3</sup> Revised.

<sup>4</sup> Includes the following force-account employees hired directly by the Federal Government: 16,400 in April 1946, 20,800 in February 1947, 20,500 in March, 1947, and 22,000 in April 1947.

<sup>5</sup> Includes construction workers engaged on the atomic bomb project.

<sup>6</sup> Includes airports, water supply and sewage disposal systems, electrification projects, community buildings, and miscellaneous public service enterprises.

The dollar volume of commercial building has been dropping steadily since the summer of 1946. The April 1947 total of 54 million dollars for this type of construction was only a little over half the amount spent in April 1946. On the other hand, private builders' expenditures of 142 million dollars for industrial building in April 1947 were 19 percent above April 1946. The decline in money spent for commercial building during the first 4 months of 1947 was offset by an increase in the amount spent for industrial building, bringing privately financed nonresidential expenditures for these months to over a billion dollars, or 15 percent above the same period in 1946.

Expenditures on privately financed public utilities continued to climb during April for the fourth successive month, rising 8 percent, to reach a 97-million-dollar total—an increase of almost half over

April 1946. Employment in this category totaled 193,000, an increase of 12,000 workers over the month.

TABLE 3.—Estimated construction expenditures <sup>1</sup> in the United States, selected months 1946 and 1947

Type of construction	Expenditures (in millions)					
	1947			April <sup>2</sup> 1946	First 4 months of—	
	April <sup>3</sup>	March <sup>3</sup>	February <sup>3</sup>		1947 <sup>3</sup>	1946 <sup>3</sup>
Total construction.....	\$988	\$914	\$863	\$850	\$3,692	\$2,791
New construction <sup>4</sup> .....	846	786	745	707	3,177	2,289
Private construction.....	636	616	594	587	2,480	1,902
Residential building (nonfarm).....	270	260	247	244	1,050	734
Nonresidential building.....	239	246	260	257	1,020	899
Industrial.....	142	146	152	119	599	440
Commercial.....	54	56	62	98	241	310
All other.....	43	44	46	40	180	139
Farm construction.....	30	20	10	20	70	50
Public utilities.....	97	90	77	66	340	229
Public construction.....	210	170	151	120	697	387
Residential building.....	19	24	32	12	113	30
Nonresidential (except military and naval facilities).....	35	28	22	22	111	91
Industrial <sup>5</sup> .....	4	3	3	6	15	29
All other.....	31	25	19	16	96	62
Military and naval facilities.....	14	12	12	15	50	59
Highway.....	80	55	46	37	228	97
Other public <sup>6</sup> .....	62	51	39	34	195	110
Federal <sup>6</sup> .....	28	25	19	18	92	57
State and local <sup>7</sup> .....	34	26	20	16	103	53
Minor building repairs <sup>8</sup> .....	142	128	118	143	515	502
Residential building (nonfarm).....	40	36	33	46	141	151
Nonresidential building.....	52	52	50	59	209	223
Farm construction.....	50	40	35	38	165	128

<sup>1</sup> Estimated construction expenditures represent the monetary value of the volume of work put in place in continental United States during the period indicated. These figures should be differentiated from the data on value of construction reported in the table on urban building construction (table 4).

<sup>2</sup> Preliminary.

<sup>3</sup> Revised.

<sup>4</sup> Estimates of new construction were prepared jointly by the Bureau of Labor Statistics and the Office of Domestic Commerce, and include expenditures for new construction, major additions, and alterations.

<sup>5</sup> Expenditures for construction incidental to production of atomic bombs are excluded.

<sup>6</sup> Mainly river, harbor, flood control, reclamation, and power projects.

<sup>7</sup> Includes water supply, sewage disposal, and miscellaneous public-service enterprises.

<sup>8</sup> Covers privately financed structural repairs of the type for which building permits are generally required, except "farm construction," which in addition, includes maintenance work.

The dollar volume of new residential construction by private builders in nonfarm areas increased 4 percent in April, to reach 270 million dollars. Expenditures of over a billion dollars in the first 4 months of 1947 were 43 percent above the amount spent in the same period last year. Private home builders added 12,000 workers during April, bringing employment on private nonfarm housing to a total of 447,000.

Publicly financed construction expenditures increased 25 percent during April, bringing the total to 210 million dollars. Rapidly expanding highway work and increased expenditures on other State and local programs, such as water supply, sewage disposal, and miscellaneous public-service enterprises, accounted for most of the increase. The 34 million dollars spent on miscellaneous State and local public

works in April was 31 percent above March. Street and highway construction in April accounted for expenditures of 80 million dollars and engaged 116,000 employees—increases of 45 and 38 percent, respectively, over March.

### Urban Building

Permit valuations of building construction in urban areas (including the valuation of Federal construction contracts awarded) rose 38 percent in March, to reach a total of 381 million dollars. About two-thirds of the increase during the month was accounted for by the 49-percent rise in residential valuations. Nonresidential building valuations in March were 27 percent higher than in February, and for additions, alterations, and repairs, the increase was 25 percent.

TABLE 4.—Estimated permit valuation <sup>1</sup> of urban building construction <sup>2</sup> by class of construction and by source of funds, selected Months of 1946 and 1947

Class of construction	Valuation (in millions)				
	1947		1946	First 3 months of—	
	March <sup>3</sup>	February <sup>4</sup>	March <sup>4</sup>	1947 <sup>3</sup>	1946 <sup>4</sup>
Total					
All building construction.....	\$381	\$277	\$743	\$ 923	\$1,438
New residential <sup>5</sup> .....	208	140	285	480	585
New nonresidential.....	109	86	337	279	609
Additions, alterations, and repairs.....	64	51	121	164	244
Non Federal					
All building construction.....	372	269	719	891	1,365
New residential <sup>5</sup> .....	206	140	265	471	526
New nonresidential.....	103	79	334	259	598
Additions, alterations, and repairs.....	63	50	120	161	241
Federal					
All building construction.....	9	8	24	32	73
New residential <sup>5</sup> .....	2	( <sup>7</sup> )	20	9	59
New nonresidential.....	6	7	3	20	11
Additions, alterations, and repairs.....	1	1	1	3	3

<sup>1</sup> Includes value of Federal construction contracts awarded.

<sup>2</sup> Estimates of non-Federal (private, and State and local government) urban building construction are based upon building-permit reports received from places containing about 85 percent of the urban population of the country; estimates of federally financed projects are compiled from notifications of construction contracts awarded, which are obtained from other Federal agencies. By Census definition the urban area comprises all incorporated places with a population of 2,500 or more in 1940 and, by special rule, a small number of unincorporated civil divisions.

<sup>3</sup> Preliminary.

<sup>4</sup> Revised.

<sup>5</sup> Includes value of dormitories and other nonhousekeeping residential buildings in addition to housekeeping units.

<sup>6</sup> Includes \$3,087,643, the estimated cost of 608 dwelling units contained in the New York City Housing Authority projects for 1946, and \$7,264,000, the estimated cost of 1,084 dwelling units for 1947. These projects, although financed solely with city funds, are included with Federal projects in order to segregate public from private housing. All other types of building construction financed with State or local government funds are included under "Non-Federal."

<sup>7</sup> Less than \$500,000.



Urban permit valuations in March 1947, however, were far below total valuations for the corresponding period a year ago, when builders hastened to get work started prior to the March 26, 1946, construction limitation order. The 743-million-dollar valuation in that one month, of construction scheduled to be started, was well over half the total permit valuations of 1,438 million dollars for the entire first quarter of 1946. Permit valuations for new housing in March 1947 amounted to 73 percent of the total for March 1946, but for nonresidential building, valuations were only 32 percent of last year's total.

For privately financed home building in the first 3 months of 1947, estimated permit valuations were 10 percent lower than in the 1946 first quarter. This 55-million-dollar decrease occurred at a time when, in addition to seasonal disturbances, home builders were harassed by mounting material and labor costs and buyer resistance to prevailing sales prices. Nonhousing construction planned by private builders in the January-March 1947 period dropped to less than half the total for the first quarter of 1946, as shown by estimated permit valuations.

Almost 38,000 new family-dwelling units were planned for early construction within city limits, as evidenced by building permits issued in March 1947—an increase of almost 40 percent over the February total. All except about 500 of these units were to be privately financed.

TABLE 5.—*Estimated number and permit valuation<sup>1</sup> of new dwelling units scheduled to be started in all urban areas<sup>2</sup>, selected months of 1946 and 1947*

Source of funds and type of dwelling	March 1947 <sup>3</sup>	February 1947 <sup>4</sup>	March 1946 <sup>4</sup>	First 3 months of—	
				1947 <sup>5</sup>	1946 <sup>4</sup>
	Number of dwelling units				
All dwellings.....	37,799	27,074	57,665	90,256	124,966
Privately financed.....	37,308	27,074	50,733	88,681	105,410
1-family.....	30,721	22,156	41,797	73,414	87,720
2-family <sup>6</sup> .....	2,492	1,615	2,651	5,603	5,768
Multifamily <sup>6</sup> .....	4,095	3,303	6,285	9,664	11,922
Federally financed <sup>7</sup> .....	491	0	6,932	1,575	19,556
	Valuation (in thousands)				
All dwellings.....	\$206,603	\$138,443	\$272,265	\$476,817	\$560,666
Privately financed.....	205,017	138,443	253,723	467,967	505,992
1-family.....	175,946	118,613	217,453	402,992	439,648
2-family <sup>6</sup> .....	11,113	6,375	11,604	23,830	23,281
Multifamily <sup>6</sup> .....	17,958	13,455	24,666	41,145	43,063
Federally financed <sup>7</sup> .....	1,586	0	18,542	8,850	54,674

<sup>1</sup> Includes value of Federal construction contracts awarded.

<sup>2</sup> See table 4, footnote 2, for source of urban estimates.

<sup>3</sup> Preliminary.

<sup>4</sup> Revised.

<sup>5</sup> Includes 1- and 2-family dwellings with stores.

<sup>6</sup> Includes multifamily dwellings with stores.

<sup>7</sup> For number of, and estimated cost of, dwelling units contained in New York City Housing Authority projects, but included here with Federally financed housing, see table 4, footnote 6.

### *Hours and Earnings*

Workers engaged on private building construction in February 1947 had an average workweek of 36.9 hours—the shortest in 4 years. Average weekly earnings of \$58.97 were \$1.00 below the January average, but were almost \$6.00 above February 1946—reflecting the 12-percent increase in average hourly earnings which occurred over the year. The 7-year peak established in average hourly earnings in January was maintained at the same level (\$1.60) in February. Earnings reported are for all workers on construction-site pay rolls—skilled, semiskilled, and unskilled; superintendents, time clerks, etc.

General building contractors reported average weekly earnings of \$54.91 for February, a decrease of \$1.58 from January, resulting from a shorter workweek. The workweek for masonry workers averaged 2½ hours less in February than in January, with a drop in earnings of \$4.08; plasterers and lathers worked, on the average, 1½ hours less and their average weekly pay declined almost \$3.00. On the other hand, a 4-cent increase in hourly earnings for excavation workers brought their weekly pay up to \$55.00; and the average weekly pay of electrical workers rose (because of a slightly longer workweek) to almost \$75.00—the highest average weekly earnings received by any group since January 1940, when monthly data first became available. For the special building trades as a whole, average weekly earnings of \$63.76 were only 24 cents under the January average. Contractors engaged in nonbuilding construction reported average weekly earnings of \$58.07 for February, an increase of \$1.40 over January.

Average weekly earnings increased over the year for all reporting groups engaged in privately financed construction work. For the special trades groups, and for nonbuilding construction workers, the increase was 15 percent. Weekly pay for those engaged by general building contractors was 8 percent more than a year ago. Increases over the year in average hourly earnings ranged from 9 percent (13 cents) for employees of painting and decorating contractors to 19 percent (27 cents) for workers engaged by plumbing and heating contractors.

Reports are received monthly from over 11,000 different contractors. Data published are summaries of all reports received during the months shown but do not necessarily represent reports from identical firms.

TABLE 6.—Average hours and earnings on private construction projects for selected types of work, February 1947<sup>1</sup>

[Subject to revision]

Type of work	Average hours per week			Average weekly earnings <sup>2</sup>			Average hourly earnings		
	February 1947	January 1947	February 1946	February 1947	January 1947	February 1946	February 1947	January 1947	February 1946
All types of work.....	37.5	37.9	37.5	\$58.82	\$59.38	\$52.74	\$1.569	\$1.568	\$1.406
Building construction.....	36.9	37.6	37.3	58.97	59.97	53.04	1.599	1.594	1.422
General contractors.....	36.2	37.2	36.8	54.91	56.49	50.80	1.516	1.518	1.379
Special building trades <sup>3</sup> .....	37.6	38.1	37.8	63.76	64.00	55.37	1.694	1.680	1.465
Plumbing and heating.....	39.3	39.9	40.0	66.65	67.16	56.92	1.694	1.681	1.423
Painting and decorating.....	36.3	35.9	37.1	58.75	58.83	55.16	1.619	1.637	1.487
Electrical work.....	40.8	40.2	40.9	74.95	73.85	65.28	1.836	1.838	1.596
Masonry.....	32.4	34.9	33.8	52.41	56.49	48.91	1.619	1.618	1.448
Plastering and lathing.....	36.3	37.9	34.9	66.84	69.81	55.81	1.840	1.842	1.601
Carpentry.....	37.8	37.7	38.7	57.69	58.20	53.37	1.528	1.544	1.379
Roofing and sheet metal.....	34.1	34.9	35.7	51.61	51.49	48.45	1.512	1.477	1.356
Excavation and foundation.....	36.0	36.3	35.2	55.00	53.98	45.97	1.529	1.487	1.306
Nonbuilding construction.....	40.4	39.0	39.0	58.07	56.67	50.60	1.437	1.451	1.296
Highway and street.....	39.1	37.3	39.5	53.83	52.23	51.98	1.378	1.401	1.316
Heavy construction.....	41.0	39.1	40.4	60.16	57.94	54.74	1.467	1.482	1.355
Other.....	39.7	40.5	40.3	55.44	56.61	49.27	1.395	1.398	1.224

<sup>1</sup> Includes all firms reporting during the months shown (over 11,000), but not necessarily identical establishments. Data cover all workers on the construction-site payroll—skilled, semiskilled, and unskilled workers; superintendents, time clerks, etc.

<sup>2</sup> Hourly earnings when multiplied by weekly hours of work may not exactly equal weekly earnings because of rounding.

<sup>3</sup> Includes types not shown separately.



# Trends of Employment and Labor Turn-Over

## Labor Force, March 1947

### WHO IS COUNTED IN THE LABOR FORCE

*Labor force.*—Persons 14 years of age and over who are employed or unemployed during the census week (the week containing the eighth day of the month).

*Employed.*—Those who, during the census week, (1) work full or part time for pay or profit; (2) work without pay in a family enterprise (farm or business) at least 15 hours; or (3) have a job but do not work because of illness, vacation, labor-management dispute, bad weather, or lay-off with definite instructions to return to work within 30 days.

*Unemployed.*—Those not working, but seeking a job.

The civilian labor force increased by 380,000 between February and March 1947 expanding the total to 58,390,000, according to the Bureau of the Census Monthly Report on the Labor Force. Employment rose by 540,000 during the month, while unemployment declined by 160,000 to a level of 2,330,000.

The decline in unemployment between February and March occurred almost entirely among veterans. The number of unemployed ex-servicemen totaled 850,000 in March, as compared to a full million a month earlier. Many of the ex-servicemen who found jobs over the month were probably fairly recent entrants into the labor market, whose reemployment had been delayed as a result of the midwinter seasonal decline in job opportunities. The number of veterans outside of the labor force, on temporary vacation, dropped by nearly a third during the month to a new low of approximately 200,000. The size of this group has been declining rapidly with the slackening of demobilization.

The level of total unemployment in March 1947 was 370,000 below the reconversion peak recorded in March 1946, though 400,000 above the November 1946 level.

Between February and March, the expansion in employment resulted from seasonal gains in both agricultural and nonagricultural activity. Farm employment, continuing the upturn of the previous month, rose 320,000 as plowing and planting began in many areas. The number of workers engaged in nonagricultural industry gained 220,000 during the month, reflecting the pre-Easter expansion in trade and the spring upturn in construction and other outdoor industries.

The level of nonfarm employment in March 1947 (48,820,000) exceeded the year-ago total by 3,890,000—3,720,000 men (principally ex-servicemen) and 170,000 women. The increase in the number of women employed in nonagricultural industry reflected the net effect of opposing forces. High marriage and birth rates, as well as continued demobilization, caused many younger women to withdraw from the labor market. On the other hand, rising living costs and favorable job opportunities induced other women, particularly in the older age groups, to enter or reenter the labor force. Thus, the number of women over 45 years of age in nonfarm jobs increased by 340,000 over the year, more than counterbalancing a decline of 170,000 among younger women.

*Total labor force in the United States, classified by employment status, hours worked, and sex, February and March 1947 and March 1946*

[Source: U. S. Department of Commerce, Bureau of the Census]

Item	Estimated number (in thousands) of persons 14 years of age and over <sup>1</sup>								
	Total, both sexes			Male			Female		
	Feb. 1947	Mar. 1947	Mar. 1946	Feb. 1947	Mar. 1947	Mar. 1946	Feb. 1947	Mar. 1947	Mar. 1946
Total labor force <sup>2</sup> .....	59,630	59,960	59,630	43,700	43,990	43,240	15,930	15,970	16,390
Civilian labor force.....	58,010	58,390	55,160	42,100	42,440	38,870	15,910	15,950	16,290
Unemployment.....	2,490	2,330	2,700	2,010	1,850	2,190	480	480	510
Employment.....	55,520	56,060	52,460	40,090	40,590	36,680	15,430	15,470	15,780
Nonagricultural.....	48,600	48,820	44,930	33,830	34,030	30,310	14,770	14,790	14,620
Worked 35 hours or more.....	40,750	40,680	37,600	29,280	29,400	26,300	11,470	11,280	11,300
Worked 15-34 hours.....	4,690	4,880	4,030	2,540	2,680	2,020	2,150	2,200	2,010
Worked 1-14 hours <sup>3</sup> .....	1,440	1,500	1,310	670	660	600	770	840	710
With a job but not at work <sup>4</sup> .....	1,720	1,760	1,990	1,340	1,290	1,390	380	470	600
Agricultural.....	6,920	7,240	7,530	6,260	6,560	6,370	660	680	1,160
Worked 35 hours or more.....	4,320	4,750	5,470	4,190	4,600	5,120	130	150	350
Worked 15-34 hours.....	1,890	1,790	1,720	1,460	1,380	1,020	430	410	700
Worked 1-14 hours <sup>3</sup> .....	280	300	190	230	230	110	(*)	(*)	(*)
With a job but not at work <sup>4</sup> .....	430	400	150	380	350	120	(*)	(*)	(*)

<sup>1</sup> Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution; those under 100,000 are not presented in the table but are replaced with an asterisk (\*). All data exclude persons in institutions.

<sup>2</sup> Total labor force consists of the civilian labor force and the armed forces. Estimates of the armed forces during the census week are projected from data on net strength as of the first of the month.

<sup>3</sup> Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

<sup>4</sup> Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute, or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

## Summary of Employment Reports for March 1947

EMPLOYMENT in manufacturing continued at February levels in March, with increases in durable goods industries offsetting drops in the nondurable goods industries. The 15½ million workers in manufacturing are almost evenly distributed between the heavy and light industries.

While manufacturing employment showed practically no change in March, nearly 220,000 employees were added to industry payrolls exclusive of agriculture. Contract construction reported a seasonal employment increase of 83,000. The spring season was also primarily responsible for an increase of 66,000 employees in trade. Expanded employment for highway maintenance raised Government employment—State and local—by 48,000.

The February-March increase raised the number of employees in nonagricultural establishments above the 42 million mark in March for the first time in 3 months. This level is based on the revised and improved series of employment estimates presented on page 921 of this issue.

### Industrial and Business Employment

The lumber industries reported the largest over-the-month increase of any manufacturing group. The net gain of 13,000 employees reflects the seasonal increase in lumber requirements of the construction industry.

The largest decrease in manufacturing employment were seasonal declines of 7,000 in food and 5,000 in textiles. Although the drop

TABLE 1.—Estimated number of employees <sup>1</sup> in nonagricultural establishments, by industry division

Industry division	Estimated number of employees (in thousands)			
	March 1947	February 1947	January 1947	March 1946
Total estimated employment.....				39, 184
Manufacturing.....	42, 066	41, 858	41, 803	13, 433
Mining.....	15, 512	15, 483	15, 372	857
Contract construction.....	878	880	883	1, 203
Transportation and public utilities.....	1, 555	1, 502	1, 527	3, 983
Trade.....	4, 022	4, 012	4, 014	8, 197
Finance, service, and miscellaneous.....	8, 564	8, 507	8, 552	5, 840
Federal, State, and local government, including Federal force-account construction.....	6, 120	6, 107	6, 071	5, 671
	5, 415	5, 367	5, 384	

<sup>1</sup> Estimates include all full- and part-time wage and salary workers in nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded. These estimates have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases dated prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Data from January 1939 forward were affected by this revision. The complete series from 1939 to date is presented on p. 923 of this issue.



in textiles may be partly seasonal, preliminary reports indicate that orders for cotton goods, woolsens and worsteds are falling off.

The apparel group, which in prewar years showed rather large increases in employment between February and March, showed only a small gain this year. The men's clothing industry registered a slight decline.

TABLE 2.—*Estimated number of production workers and indexes of production-worker employment in manufacturing industries by major industry group*<sup>1</sup>

Group	Estimated number of production workers (in thousands)		Production-worker indexes (1939=100)	
	March 1947	March 1946	March 1947	March 1946
All manufacturing.....	12,617	10,819	154.0	132.1
Durable goods.....	6,535	5,118	181.0	141.7
Nondurable goods.....	6,082	5,701	132.8	124.4
Iron and steel and their products.....	1,567	1,313	158.1	132.4
Electrical machinery.....	599	380	231.3	146.6
Machinery, except electrical.....	1,189	910	225.1	172.3
Transportation equipment, except automobiles.....	472	476	297.2	299.9
Automobiles.....	798	464	198.2	115.3
Nonferrous metals and their products.....	431	324	188.0	141.4
Lumber and timber basic products.....	611	499	145.4	118.6
Furniture and finished lumber products.....	441	376	134.3	114.6
Stone, clay, and glass products.....	427	376	145.3	128.3
Textile-mill products and other fiber manufactures.....	1,242	1,169	108.6	102.2
Apparel and other finished textile products.....	1,120	998	141.9	126.4
Leather and leather products.....	363	358	104.5	103.1
Food.....	1,055	1,050	123.5	122.8
Tobacco manufactures.....	86	82	92.2	87.9
Paper and allied products.....	387	357	143.9	134.4
Printing, publishing, and allied industries.....	421	386	128.2	117.7
Chemicals and allied products.....	569	540	197.5	187.3
Products of petroleum and coal.....	155	149	145.9	140.4
Rubber products.....	238	216	196.5	178.7
Miscellaneous industries.....	446	396	182.1	161.9

<sup>1</sup> The estimates and indexes presented in this table have been adjusted to levels indicated by the final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases dated prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Comparable series from January 1945 are presented on p. 926 of this issue.

### Public Employment

With new Budget Bureau employment ceilings still a month away and congressional appropriation cuts for the 1948 fiscal year still in the preliminary discussion stage, Federal employment between February 1 and March 1 showed a drop of only 10,000, one of the smallest since the end of the war. The War Assets Administration suffered a decline in employment for the second consecutive month while war agencies altogether declined 13,000.

Although employment in most other agencies dropped slightly or remained unchanged during this period, the Veterans Administration probably reached its peak employment with a gain of over 1,000. The Treasury Department also showed an increase in personnel in

preparation for processing income tax returns. This gain of over 2,000 was limited to temporary and part-time employees.

Federal pay rolls shown here are, for the most part, on a calendar month basis. March 1946, however, consisted of two biweekly pay periods. At present a method of adjusting Federal pay rolls to a calendar month basis is being worked out and the adjusted figures for the period July 1945–November 1946 will be available shortly.

*Source of data.*—Data for the Federal executive service are reported through the Civil Service Commission, whereas data for the legislative and judicial services and Government corporations are reported to the Bureau of Labor Statistics. Employment on Federal force-account construction is included in both the executive branch (tables 3 and 4) and in construction employment (table 2 in the section, Construction).

TABLE 3.—*Employment and pay rolls for regular Federal services and for Government corporations in selected months*

Year and month	Total	Executive <sup>1</sup>			Legis- lative	Judicial	Govern- ment corpora- tion <sup>2</sup>
		All areas	Continental United States				
			Total	Washing- ton, D. C., area			
Employment <sup>3</sup>							
March 1940.....	993, 157	958, 607	908, 715	128, 094	5, 883	2, 379	26, 288
March 1941.....	1, 254, 085	1, 217, 420	1, 137, 972	162, 380	5, 921	2, 505	28, 239
March 1942.....	1, 875, 464	1, 835, 545	1, 675, 104	233, 696	6, 343	2, 601	30, 975
March 1943.....	3, 125, 991	3, 082, 713	2, 815, 556	288, 007	6, 154	2, 597	34, 527
March 1944.....	3, 257, 765	3, 212, 740	2, 827, 782	263, 701	6, 152	2, 672	36, 201
March 1945.....	3, 574, 833	3, 531, 808	2, 918, 868	256, 497	6, 281	2, 632	34, 112
March 1946.....	2, 898, 455	2, 855, 223	2, 370, 116	235, 667	6, 459	3, 053	33, 720
January 1947 <sup>4</sup> .....	2, 279, 039	2, 237, 128	1, 948, 312	221, 293	6, 864	3, 066	31, 981
February 1947 <sup>4</sup> .....	2, 256, 832	2, 214, 638	1, 937, 231	220, 206	7, 080	3, 069	32, 045
March 1947.....	2, 247, 293	2, 205, 082	1, 930, 725	219, 367	7, 039	3, 061	32, 111
Pay rolls (in thousands) <sup>5</sup>							
March 1943.....	\$649, 695	\$642, 382	( <sup>6</sup> )	\$59, 030	\$1, 417	\$716	\$5, 180
March 1944.....	693, 309	685, 368	\$630, 781	55, 378	1, 503	758	5, 680
March 1945.....	712, 581	704, 713	647, 009	54, 856	1, 625	780	5, 463
March 1946 <sup>7</sup> .....	520, 936	512, 706	472, 312	50, 977	1, 788	930	5, 512
January 1947 <sup>7</sup> .....	536, 927	527, 493	491, 740	59, 400	2, 345	1, 191	5, 898
February 1947 <sup>7</sup> .....	505, 280	496, 017	460, 285	58, 531	2, 308	1, 090	5, 865
March 1947 <sup>7</sup> .....	498, 894	489, 503	454, 782	57, 919	2, 397	1, 185	5, 809

<sup>1</sup> Includes employees on force-account construction. Beginning July 1945, data include clerks at third-class post offices who previously were working on a contract basis. Substitute rural mail carriers are excluded from the employment.

<sup>2</sup> Data are for employees of the Panama Railroad Co., the Federal Reserve banks, and banks of the Farm Credit Administration. Data for other Government corporations are included under the executive service.

<sup>3</sup> Employment is as of the first of the calendar month.

<sup>4</sup> Revised.

<sup>5</sup> Prior to July 1945 and from December 1946 on, pay rolls cover the entire calendar month. Data for months in between represent the pay rolls for pay periods ending during the calendar month, which for most employees included pay for 4 weeks except in December 1945, June and November 1946 when it included pay for 6 weeks.

<sup>6</sup> Data not available.

<sup>7</sup> Subject to revision.

Military personnel and pay figures are reported monthly to the Bureau of Labor Statistics but are published here only quarterly.

Mimeographed tables giving civilian employment and military personnel and pay, monthly, 1939 to date, and civilian pay rolls, monthly, 1943 to date, are available upon request.

TABLE 4.—*Employment and pay rolls for the executive branch of the Federal Government in selected months*<sup>1</sup>

Year and month	All agencies	War agencies <sup>2</sup>			Other agencies <sup>3</sup>		
		Total	Continental United States	Outside Continental United States <sup>4</sup>	Total	Continental United States	Outside Continental United States <sup>5</sup>
Employment <sup>6</sup>							
March 1940.....	958,607	240,933	202,204	38,729	717,674	706,511	11,163
March 1941.....	1,217,420	453,893	387,228	66,665	763,527	750,744	12,783
March 1942.....	1,835,545	997,369	850,874	146,495	838,176	824,230	13,946
March 1943.....	3,082,713	2,275,904	2,023,641	252,263	806,809	791,915	14,894
March 1944.....	3,212,740	2,393,506	2,024,355	369,151	819,234	803,427	15,807
March 1945.....	3,531,808	2,661,320	2,064,778	596,542	870,488	854,090	16,398
March 1946.....	2,855,223	1,805,832	1,343,592	462,240	1,049,391	1,026,524	22,867
January 1947 <sup>6</sup> .....	2,237,128	1,129,710	868,473	261,237	1,107,418	1,079,839	27,579
February 1947 <sup>6</sup> .....	2,214,638	1,104,137	854,850	249,287	1,110,501	1,082,381	28,120
March 1947.....	2,205,082	1,091,197	844,818	246,379	1,113,885	1,085,907	27,978
Pay rolls (in thousands) <sup>7</sup>							
March 1943.....	\$642,382	\$487,138	( <sup>8</sup> )	( <sup>8</sup> )	\$155,244	( <sup>8</sup> )	( <sup>8</sup> )
March 1944.....	685,368	520,720	\$469,316	\$51,404	164,648	\$161,465	\$3,183
March 1945.....	704,713	534,875	480,695	54,180	169,838	166,314	3,524
March 1946 <sup>9</sup> .....	512,706	304,690	269,064	35,626	208,016	203,248	4,768
January 1947 <sup>9</sup> .....	527,493	259,352	229,968	29,384	268,141	261,772	6,369
February 1947 <sup>9</sup> .....	496,017	227,031	197,658	29,373	268,986	262,627	6,359
March 1947 <sup>9</sup> .....	489,503	220,344	192,182	28,162	269,159	262,600	6,559

<sup>1</sup> Includes employees on force-account construction.

<sup>2</sup> Covers War and Navy Departments, Maritime Commission, National Advisory Committee for Aeronautics, The Panama Canal, and the independent war-emergency and reconversion agencies.

<sup>3</sup> Beginning July 1945, data include clerks at third-class post offices who previously were working on a contract basis. Substitute rural mail carriers are excluded from the employment.

<sup>4</sup> Includes Alaska and the Panama Canal Zone.

<sup>5</sup> Employment is as of the first of the calendar month.

<sup>6</sup> Revised.

<sup>7</sup> Prior to July 1945 and from December 1946 on, pay rolls cover the entire calendar month. Data for months in between represent the pay roll for pay periods ending during the calendar month, which for most employees included pay for 4 weeks except in December 1945, June and November 1946 when it included pay for 6 weeks.

<sup>8</sup> Data not available.

<sup>9</sup> Subject to revision.

## Detailed Reports for Industrial and Business Employment, February 1947

MONTHLY REPORTS on employment and pay rolls are presented below for more than 150 manufacturing industries and for 26 nonmanufacturing industries including class 1 steam railroads. Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the period ending nearest the 15th of the month.



TABLE 1.—Estimated number of production workers in manufacturing industries <sup>1</sup>

Industry group and industry	Estimated number of production workers (in thousands)			
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946
All manufacturing <sup>1</sup> .....	12,601	12,513	12,514	10,147
Durable goods <sup>1</sup> .....	6,503	6,426	6,393	4,522
Nondurable goods <sup>1</sup> .....	6,098	6,087	6,121	5,625
<i>Durable goods</i>				
Iron and steel and their products <sup>1</sup> .....	1,562	1,552	1,521	877
Blast furnaces, steel works, and rolling mills.....	483.3	479.7	467.0	169.9
Gray-iron and semisteel castings.....	87.1	86.2	84.4	71.6
Malleable-iron castings.....	25.4	25.1	24.2	17.7
Steel castings.....	49.8	50.5	51.5	26.3
Cast-iron pipe and fittings.....	20.1	19.8	19.2	14.6
Tin cans and other tinware.....	41.3	41.6	41.5	28.9
Wire drawn from purchased rods.....	30.1	30.5	29.9	15.4
Wirework.....	39.7	41.9	40.5	28.8
Cutlery and edge tools.....	27.8	27.8	27.7	21.6
Tools (except edge tools, machine tools, files, and saws).....	26.7	26.7	26.8	21.5
Hardware.....	50.9	50.1	49.6	38.3
Plumbers' supplies.....	30.7	30.1	29.8	22.0
Stoves, oil burners, and heating equipment not elsewhere classified.....	63.4	62.7	60.8	44.0
Steam and hot-water heating apparatus and steam fittings.....	52.5	52.6	51.0	34.6
Stamped and enameled ware and galvanizing.....	85.8	84.9	84.5	58.8
Fabricated structural and ornamental metalwork.....	58.0	57.5	57.1	32.2
Metal doors, sash, frames, molding, and trim.....	10.1	10.2	10.1	6.8
Bolts, nuts, washers, and rivets.....	21.7	21.6	21.2	14.8
Forgings, iron, and steel.....	27.3	26.9	26.7	22.9
Wrought pipe, welded, and heavy-riveted.....	13.8	13.6	13.2	7.1
Screw machine products, and wood screws.....	29.5	29.4	29.3	25.9
Steel barrels, kegs, and drums.....	6.0	6.2	6.1	2.7
Firearms.....	14.4	14.3	14.0	10.9
Electrical machinery <sup>1</sup> .....	601	598	597	353
Electrical equipment.....	317.9	315.5	314.8	168.1
Radios and phonographs.....	92.8	92.8	93.5	64.9
Communication equipment.....	92.2	92.4	92.6	66.4
Machinery, except electrical <sup>1</sup> .....	1,178	1,171	1,161	861
Machinery and machine-shop products.....	383.5	381.0	379.6	295.0
Engines and turbines.....	45.5	45.4	45.6	24.8
Tractors.....	55.0	54.8	54.5	25.2
Agricultural machinery, excluding tractors.....	46.4	45.6	44.8	29.7
Machine tools.....	59.0	59.8	60.6	58.4
Machine-tool accessories.....	50.1	51.3	51.5	45.5
Textile machinery.....	36.9	36.3	35.3	26.6
Pumps and pumping equipment.....	59.4	58.8	58.9	47.5
Typewriters.....	23.0	22.7	22.3	15.3
Cash registers, adding and calculating machines.....	38.7	37.6	37.3	30.1
Washing machines, wringers and driers, domestic.....	13.3	12.7	12.5	9.6
Sewing machines, domestic and industrial.....	11.1	10.9	10.7	8.4
Refrigerators and refrigeration equipment.....	67.1	68.2	65.2	43.9
Transportation equipment, except automobiles <sup>1</sup> .....	474	473	473	484
Locomotives.....	26.9	26.6	27.1	4.2
Cars, electric- and steam-railroad.....	53.0	50.6	50.8	41.6
Aircraft and parts, excluding aircraft engines.....	142.7	144.7	144.7	117.5
Aircraft engines.....	28.9	29.8	29.0	21.2
Shipbuilding and boatbuilding.....	141.2	142.1	142.8	227.6
Motoreycles, bicycles, and parts.....	12.5	12.2	12.1	8.7
Automobiles <sup>1</sup> .....	791	755	774	430
Nonferrous metals and their products <sup>1</sup> .....	433	428	426	294
Smelting and refining, primary, of nonferrous metals.....	41.4	40.2	40.2	32.7
Alloying and rolling and drawing of nonferrous metals except aluminum.....	63.8	63.0	62.8	41.7
Clocks and watches.....	28.5	28.3	28.2	24.7
Jewelry (precious metals) and jewelers' findings.....	17.8	17.9	17.9	16.5
Silverware and plated ware.....	15.4	15.2	15.2	12.7
Lighting equipment.....	33.0	32.3	31.6	17.8
Aluminum manufactures.....	50.9	51.2	51.3	26.1
Sheet metal work, not elsewhere classified.....	26.8	26.7	26.9	19.4

See footnote at end of table.

TABLE 1.—Estimated number of production workers in manufacturing industries <sup>1</sup>—Con.

Industry group and industry	Estimated number of production workers (in thousands)			
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946
<i>Durable goods—Continued</i>				
Lumber and timber basic products <sup>1</sup> .....	598	592	592	487
Sawmills and logging camps.....	229.9	228.5	231.4	202.2
Planing and plywood mills.....	76.7	76.9	76.5	65.9
Furniture and finished lumber products <sup>1</sup> .....	442	432	425	370
Mattresses and bedsprings.....	23.6	23.5	23.1	18.4
Furniture.....	176.8	173.4	171.5	151.9
Wooden boxes, other than cigar.....	26.6	26.4	25.9	24.1
Caskets and other morticians' goods.....	14.9	14.9	14.7	13.0
Wood preserving.....	13.6	13.1	12.7	11.7
Wood, turned and shaped.....	25.7	24.5	24.1	21.9
Stone, clay, and glass products <sup>1</sup> .....	424	425	424	366
Glass and glassware.....	101.7	104.1	103.8	99.3
Glass products made from purchased glass.....	13.4	13.2	12.9	11.8
Cement.....	28.9	28.9	29.1	22.4
Brick tile and terra cotta.....	63.2	63.2	62.2	52.9
Pottery and related products.....	50.4	49.6	49.4	42.9
Gypsum.....	6.1	6.1	6.2	4.9
Wallboard, plaster (except gypsum), and mineral wool.....	11.1	11.1	11.1	10.0
Lime.....	9.0	8.9	8.9	8.0
Marble, granite, slate, and other products.....	17.4	16.9	17.3	14.8
Abrasives.....	20.1	20.2	20.1	16.9
Asbestos products.....	21.5	21.7	21.7	14.5
<i>Nondurable goods</i>				
Textile-mill products and other fiber manufactures <sup>1</sup> .....	1,247	1,242	1,242	1,130
Cotton manufactures, except smallwares.....	471.5	470.1	468.8	437.3
Cotton smallwares.....	14.4	14.6	14.5	13.9
Silk and rayon goods.....	95.4	95.7	95.6	89.2
Woolen and worsted manufactures, except dyeing and finishing.....	162.1	163.0	164.4	153.9
Hosiery.....	120.0	119.0	118.5	109.5
Knitted cloth.....	10.4	10.5	10.9	11.5
Knitted outerwear and knitted gloves.....	30.1	30.4	31.7	29.1
Knitted underwear.....	37.2	36.6	36.0	34.3
Dyeing and finishing textiles, including woolen and worsted.....	66.4	66.0	65.0	62.5
Carpets and rugs, wool.....	27.2	26.7	26.4	21.6
Hats, fur-felt.....	11.9	12.0	11.9	10.6
Jute goods, except felts.....	3.9	3.8	3.7	3.7
Cordage and twine.....	15.0	15.0	15.4	14.2
Apparel and other finished textile products <sup>1</sup> .....	1,119	1,090	1,079	976
Men's clothing, not elsewhere classified.....	206.7	205.6	205.5	186.5
Shirts, collars, and nightwear.....	59.6	57.7	57.8	51.7
Underwear and neckwear, men's.....	12.5	12.5	12.9	11.6
Work shirts.....	14.3	14.0	13.8	13.6
Women's clothing, not elsewhere classified.....	221.4	213.7	211.2	213.7
Corsets and allied garments.....	17.0	17.0	16.9	15.7
Millinery.....	20.3	19.1	17.8	20.9
Handkerchiefs.....	2.6	2.5	2.5	2.5
Curtains, draperies, and bedspreads.....	12.0	12.3	12.8	12.4
Housefurnishings, other than curtains, etc.....	10.3	10.4	10.7	10.3
Textile bags.....	14.6	14.5	14.8	14.5
Leather and products <sup>1</sup> .....	370	368	362	351
Leather.....	43.7	43.2	42.9	44.7
Boot and shoe cut stock and findings.....	17.6	17.8	18.1	17.4
Boots and shoes.....	201.0	199.6	194.8	187.0
Leather gloves and mittens.....	9.9	10.1	10.6	11.7
Trunks and suitcases.....	13.9	14.0	14.7	13.6
Food <sup>1</sup> .....	1,061	1,098	1,139	1,061
Slaughtering and meat packing.....	148.9	154.4	150.7	151.2
Butter.....	22.4	22.1	23.5	21.7
Condensed and evaporated milk.....	13.4	13.1	12.9	12.8
Ice cream.....	16.4	16.1	16.4	15.5
Flour.....	30.7	30.5	30.7	31.3
Feeds, prepared.....	21.6	21.9	21.2	23.5
Cereal preparations.....	9.8	10.2	10.8	11.0
Baking.....	243.9	249.0	252.7	253.2
Sugar refining, cane.....	13.2	14.6	14.9	12.3

See footnote at end of table.

TABLE 1.—Estimated number of production workers in manufacturing industries <sup>1</sup>—Con.

Industry group and industry	Estimated number of production workers (in thousands)			
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946
<i>Nondurable goods—Continued</i>				
<b>Foods—Continued</b>				
Sugar, beet.....	5.1	9.2	16.1	4.9
Confectionery.....	56.8	56.9	58.6	51.4
Beverages, nonalcoholic.....	22.4	22.5	23.1	22.4
Malt liquors.....	52.4	52.7	53.7	55.5
Canning and preserving.....	81.7	94.6	115.8	89.6
<b>Tobacco manufactures <sup>1</sup></b>	89	90	92	81
Cigarettes.....	33.4	34.1	34.5	31.9
Cigars.....	42.1	41.8	42.9	36.4
Tobacco (chewing and smoking) and snuff.....	7.2	7.5	7.8	7.8
<b>Paper and allied products <sup>1</sup></b>	387	386	387	352
Paper and pulp.....	172.7	172.0	171.8	159.8
Paper goods, other.....	47.6	47.5	47.9	45.5
Envelopes.....	11.0	10.9	11.0	10.0
Paper bags.....	15.8	16.0	15.8	14.0
Paper boxes.....	90.9	91.3	92.6	83.1
<b>Printing, publishing, and allied industries <sup>1</sup></b>	420	417	420	381
Newspapers and periodicals.....	137.2	135.2	136.7	124.9
Printing, book and job.....	166.0	166.2	166.3	152.7
Lithographing.....	30.5	30.3	30.5	27.9
Bookbinding.....	33.9	33.7	34.1	30.1
<b>Chemicals and allied products <sup>1</sup></b>	568	564	555	536
Paints, varnishes, and colors.....	36.8	36.3	36.4	33.8
Drugs, medicines, and insecticides.....	54.2	54.5	53.8	50.8
Perfumes and cosmetics.....	10.6	10.9	11.5	12.1
Soap.....	15.1	14.5	14.3	13.9
Rayon and allied products.....	59.1	58.9	58.6	59.7
Chemicals, not elsewhere classified.....	124.2	124.3	122.9	114.9
Explosives and safety fuses.....	13.7	13.4	12.9	15.4
Compressed and liquefied gases.....	5.9	5.8	5.7	5.2
Ammunition, small-arms.....	6.6	6.6	6.6	8.4
Fireworks.....	2.7	3.0	3.5	2.4
Cottonseed oil.....	16.5	17.3	18.9	15.4
Fertilizers.....	27.9	25.6	23.1	28.5
<b>Products of petroleum and coal <sup>1</sup></b>	155	154	155	142
Petroleum refining.....	98.5	98.3	99.4	96.4
Coke and byproducts.....	26.1	25.6	25.0	19.7
Paving materials.....	1.6	1.6	1.6	1.5
Roofing materials.....	12.3	12.4	12.5	10.8
<b>Rubber products <sup>1</sup></b>	240	240	242	211
Rubber tires and inner tubes.....	108.9	110.1	111.7	101.4
Rubber boots and shoes.....	20.3	19.9	19.7	16.9
Rubber goods, other.....	76.4	76.6	77.0	66.7
<b>Miscellaneous industries <sup>1</sup></b>	442	438	448	384
Instruments (professional and scientific), and fire control equipment.....	20.1	20.1	20.4	22.3
Photographic apparatus.....	25.3	25.3	25.4	22.5
Optical instruments and ophthalmic goods.....	21.6	21.8	21.9	20.7
Pianos, organs, and parts.....	10.6	10.4	9.5	7.5
Games, toys, and dolls.....	22.1	21.5	24.2	18.4
Buttons.....	9.7	10.1	10.5	10.2
Fire extinguishers.....	2.3	2.1	2.2	2.3

<sup>1</sup> February 1947 estimates are based on reports from 32,900 cooperating establishments covering 7,473,000 production workers. Estimates for the major industry groups have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases dated prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Comparable series from January 1945 are presented on p. 926. Estimates for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data. For this reason, together with the fact that this Bureau has not prepared estimates for certain industries, the sum of the individual industry estimates will not agree with the totals shown for the major industry groups.

NOTE.—Annual averages for 1945 and 1946 are presented on p. 917 of this issue.



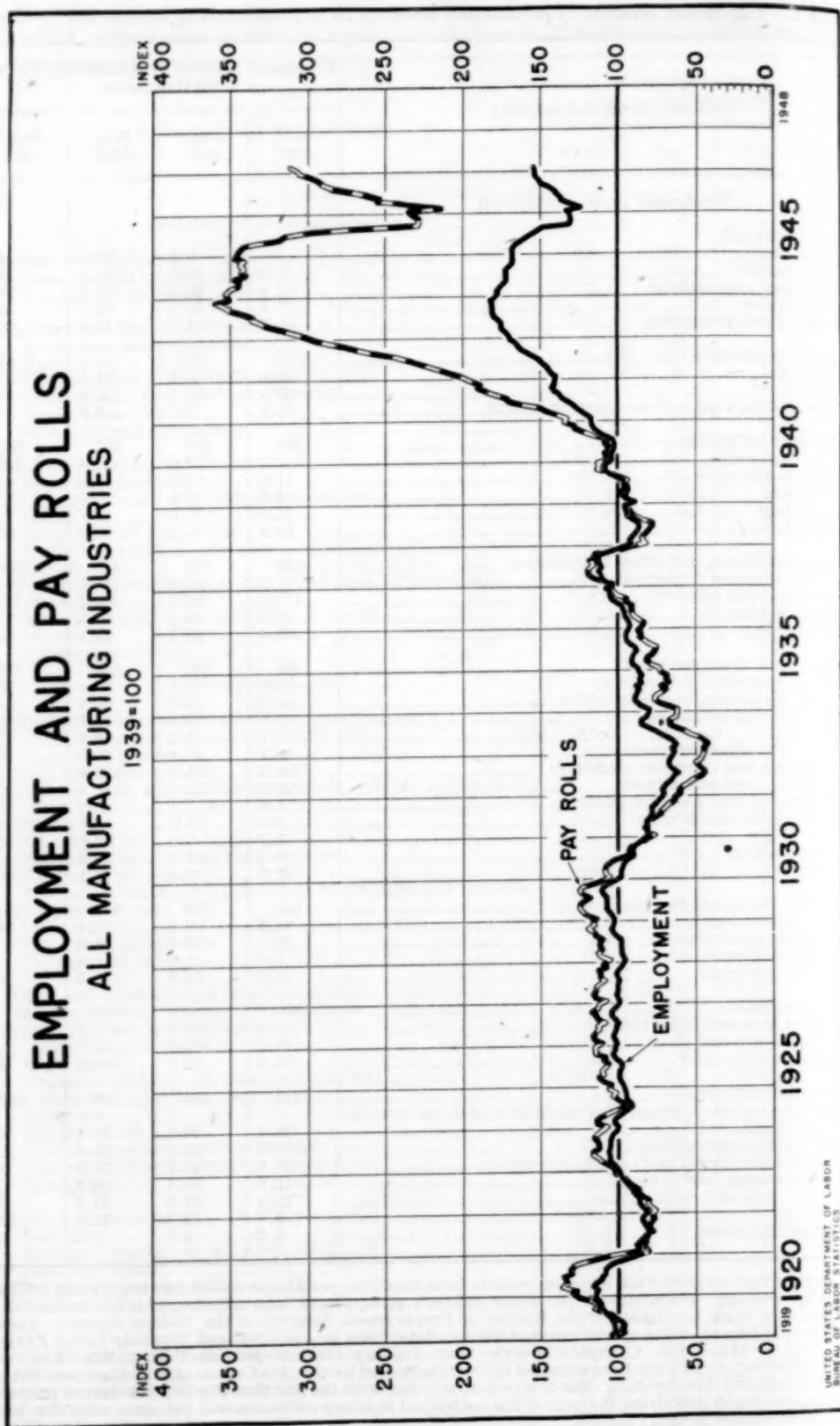


TABLE 2.—Indexes of production-worker employment and pay rolls in manufacturing industries <sup>1</sup>

(1939 average = 100)

Industry group and industry	Employment indexes				Pay-roll indexes			
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946
All manufacturing <sup>1</sup> .....	153.8	152.7	152.8	123.9	310.7	307.3	306.2	214.3
Durable goods <sup>1</sup> .....	180.1	178.0	177.0	125.2	344.5	339.8	337.3	204.2
Nondurable goods <sup>1</sup> .....	133.1	132.9	133.6	122.8	277.7	275.5	275.8	224.1
<i>Durable goods</i>								
Iron and steel and their products <sup>1</sup> .....	157.5	156.5	153.4	88.4	287.8	287.9	276.2	132.6
Blast furnaces, steel works, and rolling mills.....	124.4	123.5	120.2	43.7	209.3	208.9	193.9	47.6
Gray-iron and semisteel castings.....	149.1	147.4	144.5	122.6	317.1	317.1	307.8	230.0
Malleable-iron castings.....	141.1	139.2	134.1	98.3	307.5	302.8	283.8	187.3
Steel castings.....	165.4	167.7	171.3	87.4	293.0	302.8	315.4	148.9
Cast-iron pipe and fittings.....	121.8	123.0	116.2	88.5	282.1	286.7	259.9	174.1
Tin cans and other tinware.....	130.1	131.0	130.5	91.0	238.7	242.8	244.5	149.2
Wire drawn from purchased rods.....	136.8	138.8	135.9	70.0	239.6	247.7	239.6	100.2
Wirework.....	130.6	137.7	133.4	94.6	254.9	273.8	261.7	165.3
Cutlery and edge tools.....	180.3	180.5	179.8	140.2	405.7	405.1	404.7	288.2
Tools (except edge tools, machine tools, files, and saws).....	174.6	174.1	175.0	140.6	355.6	361.3	360.8	262.3
Hardware.....	142.9	140.4	139.0	107.5	297.5	289.0	286.2	195.7
Plumbers' supplies.....	124.7	122.2	120.8	89.4	229.6	237.6	226.7	148.5
Stoves, oil burners, and heating equipment not elsewhere classified.....	137.4	135.9	131.7	95.4	273.8	277.1	264.8	159.4
Steam and hot-water heating apparatus and steam fittings.....	173.2	173.5	168.3	114.1	331.8	331.2	312.7	204.4
Stamped and enameled ware and galvanizing.....	154.5	152.9	152.2	105.9	317.6	318.3	320.9	192.3
Fabricated structural and ornamental metal-work.....	163.4	162.0	160.8	90.6	293.8	287.9	293.0	134.4
Metal doors, sash, frames, molding, and trim.....	130.9	131.2	130.2	88.4	249.6	255.2	257.4	136.8
Bolts, nuts, washers, and rivets.....	151.5	150.7	148.3	103.4	287.2	277.4	272.9	179.9
Forgings, iron and steel.....	177.8	175.0	173.9	149.3	348.9	341.0	333.2	242.1
Wrought pipe, welded and heavy-riveted.....	165.2	161.9	158.0	85.0	293.6	292.9	285.8	135.3
Screw-machine products and wood screws.....	174.5	173.9	173.0	153.0	354.8	355.0	351.3	268.9
Steel barrels, kegs, and drums.....	99.5	102.9	100.1	44.5	236.3	232.4	231.9	84.8
Firearms.....	288.8	285.2	280.6	217.9	588.6	569.8	568.0	399.9
Electrical machinery <sup>1</sup> .....	232.0	230.6	230.6	136.1	422.5	424.6	430.2	214.2
Electrical equipment.....	175.9	174.6	174.1	93.0	314.4	316.5	317.0	139.3
Radios and phonographs.....	213.3	213.3	215.0	149.1	417.7	423.2	447.7	271.8
Communication equipment.....	287.0	287.6	288.4	206.7	528.1	530.3	535.8	337.6
Machinery, except electrical <sup>1</sup> .....	223.0	221.0	219.6	163.0	408.3	405.4	399.9	264.0
Machinery and machine-shop products.....	189.6	188.3	187.6	145.8	349.3	348.8	346.7	239.4
Engines and turbines.....	243.8	243.5	244.5	133.2	493.1	491.7	500.8	230.5
Tractors.....	175.9	175.2	174.2	80.5	273.6	273.3	271.3	104.7
Agricultural machinery, excluding tractors.....	166.8	164.1	161.0	106.8	309.5	296.0	291.1	165.6
Machine tools.....	161.1	163.2	165.3	159.5	278.9	282.7	290.7	258.2
Machine-tool accessories.....	199.2	204.0	204.8	180.7	332.5	342.7	351.0	279.4
Textile machinery.....	168.4	165.6	161.4	121.5	346.6	337.0	321.7	222.7
Pumps and pumping equipment.....	245.1	242.7	243.1	195.9	485.3	466.5	467.8	350.0
Typewriters.....	142.0	139.8	137.2	94.5	282.6	276.2	270.1	174.4
Cash registers, adding and calculating machines.....	196.8	191.2	189.3	153.0	388.5	355.7	347.2	253.9
Washing machines, wringers and driers, domestic.....	177.7	169.6	166.8	128.7	316.8	326.8	306.2	200.9
Sewing machines, domestic and industrial.....	142.1	138.6	136.2	106.7	287.6	278.1	273.0	195.8
Refrigerators and refrigeration equipment.....	190.8	194.1	185.6	124.7	325.0	345.7	306.4	168.4
Transportation equipment, except automobiles <sup>1</sup> .....	298.4	298.2	298.2	305.1	559.3	564.1	571.2	509.4
Locomotives.....	416.3	410.9	418.8	64.3	827.2	797.2	876.0	123.6
Cars, electric- and steam-railroad.....	216.1	206.4	207.2	169.5	440.4	412.8	408.8	277.5
Aircraft and parts, excluding aircraft engines.....	359.6	364.8	364.8	296.2	673.8	674.8	683.3	520.7
Aircraft engines.....	325.0	334.7	326.2	239.0	513.1	541.7	533.7	369.1
Shipbuilding and boatbuilding.....	203.9	205.2	206.2	328.7	375.5	394.2	399.1	530.4
Motorcycles, bicycles, and parts.....	179.4	175.1	173.6	125.2	327.6	318.5	346.7	201.0
Automobiles <sup>1</sup> .....	196.5	187.7	192.3	106.8	337.3	321.1	328.9	147.6
Nonferrous metals and their products <sup>1</sup> .....	188.9	186.9	185.8	128.2	361.0	354.8	356.3	226.9
Smelting and refining, primary, of nonferrous metals.....	149.9	145.5	145.4	118.2	282.4	269.7	271.2	204.2
Alloying and rolling and drawing of nonferrous metals except aluminum.....	164.4	162.2	161.7	107.4	307.6	301.4	301.9	191.8
Clocks and watches.....	140.7	139.3	139.1	121.6	306.2	296.0	306.3	233.6
Jewelry (precious metals) and jewelers' findings.....	123.6	124.3	123.9	114.0	233.4	236.8	250.5	204.8
Silverware and plated ware.....	126.5	125.2	125.5	104.5	271.4	271.9	275.8	208.5
Lighting equipment.....	161.2	157.9	154.4	86.9	298.8	285.7	272.5	136.1
Aluminum manufactures.....	216.0	217.6	217.7	110.9	376.8	383.6	384.5	181.6
Sheet-metal work, not elsewhere classified.....	142.7	142.3	143.7	103.7	278.5	280.6	281.9	185.5

See footnotes at end of table.

TABLE 2.—Indexes of production-worker employment and pay rolls in manufacturing industries<sup>1</sup>—Continued

1939 average=100

Industry group and industry	Employment indexes				Pay-roll indexes			
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946
<i>Durable goods—Continued</i>								
Lumber and timber basic products <sup>1</sup> .....	142.2	140.8	140.8	116.0	310.4	292.2	290.6	205.6
Sawmills and logging camps.....	79.8	79.3	80.3	70.2	175.6	163.4	163.6	123.0
Planing and plywood mills.....	105.6	105.9	105.3	90.8	218.3	216.2	215.4	160.9
Furniture and finished lumber products <sup>1</sup> .....	134.6	131.8	129.6	112.7	292.3	282.1	279.1	208.9
Mattresses and bedsprings.....	128.8	128.2	125.9	100.2	258.0	259.8	259.0	173.1
Furniture.....	111.1	108.9	107.8	95.4	243.0	234.8	230.7	176.7
Wooden boxes, other than cigar.....	104.8	104.2	102.2	95.2	238.4	234.8	236.1	190.1
Caskets and other morticians' goods.....	119.6	119.6	118.3	104.3	228.9	227.8	225.6	179.2
Wood preserving.....	121.1	116.6	113.1	103.7	295.4	277.5	275.1	212.5
Wood, turned and shaped.....	117.1	111.5	109.6	99.5	250.0	236.7	237.0	187.7
Stone, clay, and glass products <sup>1</sup> .....	144.5	144.9	144.4	124.7	278.4	280.0	281.6	210.0
Glass and glassware.....	145.7	149.1	148.6	142.3	270.7	282.6	283.1	236.5
Glass products made from purchased glass.....	133.6	132.0	129.3	117.8	279.2	268.7	264.4	205.2
Cement.....	121.2	121.5	122.2	94.0	201.1	197.9	209.3	141.6
Brick, tile, and terra cotta.....	111.3	111.3	109.6	93.2	226.6	226.6	225.2	158.3
Pottery and related products.....	152.2	149.9	149.1	129.6	278.8	270.0	274.4	209.5
Gypsum.....	122.8	123.8	124.8	99.6	238.9	243.8	245.1	172.3
Wallboard, plaster (except gypsum), and mineral wool.....	136.6	136.5	137.1	122.9	313.3	292.0	301.6	228.5
Lime.....	95.3	94.2	93.6	84.8	218.2	210.0	219.7	167.7
Marble, granite, slate, and other products.....	94.0	91.3	93.6	79.8	158.1	152.9	158.0	122.0
Abrasives.....	259.9	261.8	260.0	218.9	450.2	482.6	459.9	319.3
Asbestos products.....	135.4	136.8	136.4	91.1	307.7	305.5	300.0	181.5
<i>Nondurable goods</i>								
Textile-mill products and other fiber manufactures <sup>1</sup> .....	109.1	108.6	108.6	100.6	262.0	254.3	253.7	202.5
Cotton manufactures, except smallwares.....	119.1	118.7	118.4	110.4	309.1	304.4	301.2	230.0
Cotton smallwares.....	108.4	110.0	109.0	104.6	237.3	239.3	231.9	200.0
Silk and rayon goods.....	79.6	79.9	79.8	74.4	206.9	201.3	197.9	158.3
Woolen and worsted manufactures, except dyeing and finishing.....	108.6	109.2	110.2	103.1	275.0	251.8	253.0	226.9
Hosiery.....	75.5	74.8	74.5	69.0	157.9	156.1	158.2	125.3
Knitted cloth.....	94.9	95.7	99.6	101.2	204.2	198.5	207.1	202.3
Knitted outerwear and knitted gloves.....	107.0	108.0	112.7	105.4	237.8	238.3	250.4	211.0
Knitted underwear.....	96.5	94.9	93.4	89.4	223.7	215.5	216.1	174.4
Dyeing and finishing textiles, including woolen and worsted.....	99.3	98.7	97.2	93.4	217.2	215.3	210.4	177.8
Carpets and rugs, wool.....	106.3	104.4	103.1	84.5	214.5	210.6	214.3	146.4
Hats, fur-felt.....	82.0	82.5	81.7	73.2	175.3	180.5	191.0	153.4
Jute goods, except felts.....	107.8	105.2	102.3	103.3	255.9	240.1	236.4	209.8
Cordage and twine.....	123.7	124.0	127.2	117.0	273.6	271.8	278.4	208.1
Apparel and other finished textile products <sup>1</sup> .....	141.7	138.1	136.6	123.7	315.5	302.4	292.7	236.1
Men's clothing, not elsewhere classified.....	94.5	94.0	94.0	85.3	210.4	209.0	210.7	158.1
Shirts, collars, and nightwear.....	84.6	81.9	82.0	73.4	198.8	193.1	198.1	147.7
Underwear and neckwear, men's.....	77.6	77.5	79.6	71.6	195.0	193.7	200.8	158.7
Work shirts.....	106.3	104.2	102.2	100.9	254.3	246.7	254.1	197.7
Women's clothing, not elsewhere classified.....	81.5	78.7	77.7	78.7	183.0	171.9	159.1	153.3
Corsets and allied garments.....	90.7	90.4	90.0	83.4	192.6	186.0	185.9	156.1
Millinery.....	83.6	78.4	73.3	85.7	165.8	140.0	116.7	152.6
Handkerchiefs.....	53.2	51.5	51.5	51.2	123.8	113.3	124.7	105.1
Curtains, draperies, and bedspreads.....	70.8	73.0	75.9	73.3	149.7	154.6	164.9	142.8
Housefurnishings, other than curtains, etc.....	96.8	98.3	100.9	96.5	192.8	197.1	207.4	174.7
Textile bags.....	121.6	120.9	123.5	120.7	241.7	245.9	242.7	207.3
Leather and leather products <sup>1</sup> .....	106.5	106.0	104.4	101.1	222.9	220.6	218.3	195.9
Leather.....	92.4	91.5	90.7	94.5	185.5	179.3	174.5	165.3
Boot and shoe cut stock and findings.....	93.6	94.6	95.8	92.6	175.6	178.4	178.4	165.0
Boots and shoes.....	92.2	91.5	89.3	85.8	198.6	197.5	194.7	171.1
Leather gloves and mittens.....	98.9	101.0	106.0	117.1	183.5	191.9	201.9	211.8
Trunks and suitcases.....	166.7	168.5	176.7	163.0	327.6	321.0	353.1	280.6
Food <sup>1</sup> .....	124.2	128.4	133.3	124.1	243.0	256.4	263.3	214.7
Slaughtering and meat packing.....	123.5	128.1	125.0	125.5	237.8	268.0	236.9	199.4
Butter.....	124.7	123.1	130.6	120.7	237.3	233.7	246.6	200.9
Condensed and evaporated milk.....	137.9	134.6	132.5	132.3	278.2	269.8	256.2	225.8
Ice cream.....	104.4	102.3	104.4	98.5	182.8	181.6	185.5	152.3
Flour.....	124.0	123.2	123.9	126.5	262.2	268.2	267.8	241.6

See footnotes at end of table.



TABLE 2.—Indexes of production-worker employment and pay rolls in manufacturing industries <sup>1</sup>—Continued

1939 average=100

Industry group and industry	Employment indexes				Pay-roll indexes			
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946
<i>Nondurable goods—Continued</i>								
Food <sup>1</sup> —Continued								
Feeds, prepared.....	140.4	142.1	137.6	152.6	278.2	284.3	266.9	272.7
Cereal preparations.....	131.9	137.0	145.0	147.3	253.9	260.5	271.9	248.6
Baking.....	105.7	107.9	109.6	109.7	194.5	201.1	209.0	181.2
Sugar refining, cane <sup>2</sup> .....	93.0	103.2	105.2	86.8	161.2	167.3	200.2	121.4
Sugar, beet.....	49.1	88.0	154.8	46.7	96.9	158.6	341.8	74.0
Confectionery.....	114.1	114.3	117.9	103.4	230.1	226.3	240.5	183.2
Beverages, nonalcoholic.....	105.2	105.8	108.5	105.5	163.0	164.8	169.1	144.9
Malt liquors.....	145.2	145.9	148.8	153.9	233.6	235.7	251.5	237.8
Canning and preserving.....	60.8	70.3	86.2	66.6	137.9	158.2	201.1	136.6
Tobacco manufactures <sup>1</sup> .....	95.4	96.1	98.3	87.3	201.0	209.4	222.0	165.2
Cigarettes.....	121.9	124.2	125.9	116.1	233.6	241.5	254.7	194.3
Cigars.....	82.8	82.1	84.3	71.5	186.2	195.2	206.7	148.9
Tobacco (chewing and smoking) and snuff.....	78.4	82.1	85.4	84.6	144.0	155.8	166.8	133.4
Paper and allied products <sup>1</sup> .....	145.9	145.6	145.7	132.5	287.4	284.3	284.5	228.0
Paper and pulp.....	125.6	125.2	125.0	116.3	250.5	245.6	244.9	203.6
Paper goods, other.....	126.5	126.2	127.4	120.8	247.0	246.4	249.0	204.9
Envelopes.....	126.4	125.9	126.7	115.1	237.3	234.9	235.4	185.4
Paper bags.....	142.6	144.7	142.4	126.2	283.9	292.2	283.5	221.3
Paper boxes.....	131.4	132.0	133.9	120.1	256.8	257.9	262.1	204.0
Printing, publishing, and allied industries <sup>1</sup> .....	128.1	127.2	127.9	116.2	221.7	219.6	223.9	177.4
Newspapers and periodicals.....	115.6	114.0	115.2	105.3	191.0	185.2	189.7	148.9
Printing, book and job.....	131.4	131.5	131.6	120.9	234.2	235.2	239.4	193.9
Lithographing.....	117.4	116.4	117.3	107.3	199.7	201.8	203.4	161.8
Bookbinding.....	131.6	130.9	132.3	116.6	275.8	278.0	283.6	221.0
Chemicals and allied products <sup>1</sup> .....	197.0	195.6	192.5	185.8	372.5	362.9	357.0	310.7
Paints, varnishes, and colors.....	130.6	129.0	129.2	120.1	222.0	216.4	214.7	185.2
Drugs, medicines, and insecticides.....	197.8	198.7	196.4	185.5	364.8	354.9	351.3	297.2
Perfumes and cosmetics.....	102.5	104.7	110.8	116.8	184.5	186.6	203.2	184.9
Soap.....	111.2	107.1	105.5	102.2	208.3	199.2	195.7	167.2
Rayon and allied products.....	122.3	122.0	121.3	123.6	236.0	219.7	216.3	197.3
Chemicals, not elsewhere classified.....	178.6	178.6	176.7	165.1	323.5	321.0	313.4	272.5
Explosives and safety fuses.....	188.3	184.9	177.4	211.7	307.9	320.3	299.2	324.7
Compressed and liquefied gases.....	149.4	146.2	144.0	131.3	250.9	240.6	243.2	209.0
Ammunition, small-arms.....	155.4	155.9	155.8	197.5	334.1	332.3	326.7	384.0
Fireworks.....	231.0	258.9	298.7	203.3	623.7	661.1	788.6	496.4
Cottonseed oil.....	108.3	114.1	124.4	101.4	280.7	295.0	326.8	215.3
Fertilizers.....	148.8	136.6	122.8	151.7	360.6	327.6	304.9	335.9
Products of petroleum and coal <sup>1</sup> .....	146.0	145.3	146.1	134.2	256.8	253.9	250.9	227.1
Petroleum refining.....	135.2	135.0	136.4	132.3	228.8	227.5	230.2	217.4
Coke and byproducts.....	120.2	117.9	115.3	90.7	229.0	221.0	196.7	162.1
Paving materials.....	66.3	67.1	67.6	60.3	110.6	114.6	129.6	115.4
Roofing materials.....	152.9	154.4	155.8	134.4	314.0	313.5	309.8	241.0
Rubber products <sup>1</sup> .....	198.2	198.8	200.1	174.5	386.0	386.3	392.2	287.7
Rubber tires and inner tubes.....	201.2	203.5	206.3	187.3	357.7	361.2	368.9	271.9
Rubber boots and shoes.....	136.8	133.9	132.7	113.9	280.6	276.0	272.6	211.5
Rubber goods, other.....	147.6	148.0	148.7	128.8	305.2	303.4	308.6	233.8
Miscellaneous industries <sup>1</sup> .....	180.8	179.2	183.2	156.8	359.8	356.6	363.3	280.6
Instruments (professional and scientific), and fire control equipment.....	181.8	182.0	184.3	201.3	326.4	329.5	334.6	321.7
Photographic apparatus.....	146.4	146.5	146.8	130.1	249.5	254.1	253.1	204.5
Optical instruments and ophthalmic goods.....	186.2	187.9	188.5	178.0	334.3	344.8	346.3	300.8
Pianos, organs, and parts.....	139.8	137.1	124.7	98.5	299.6	294.8	242.2	159.8
Games, toys, and dolls.....	118.4	115.1	129.9	98.6	249.6	239.2	285.6	190.8
Buttons.....	88.7	91.7	95.5	92.7	200.1	203.0	215.7	185.5
Fire extinguishers.....	227.3	214.7	219.6	227.2	409.7	425.9	438.8	466.9

<sup>1</sup> These indexes are based on reports from 32,900 cooperating establishments covering 7,473,000 full- and part-time production workers who worked or received pay during any part of one pay period ending nearest the 15th of February 1947. Indexes for the major industry groups have been adjusted to levels indicated by final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases dated prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Comparable series from January 1945 are presented on p. 926.

NOTE.—Annual averages for 1945 and 1946 are presented on p. 917 of this issue.

<sup>2</sup> Revisions have been made as follows in the indexes for earlier months: *Sugar refining, cane*.—November 1946 pay roll to 150.4.

TABLE 3.—Estimated number of employees in selected nonmanufacturing industries<sup>1</sup>

Industry group and industry	Estimated number of employees (in thousands)			
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946
Mining: <sup>2</sup>				
Anthracite.....	68.7	69.1	68.7	67.2
Bituminous coal.....	335	336	326	341
Metal.....	77.3	76.9	76.0	59.5
Iron.....	26.4	26.6	26.6	17.9
Copper.....	24.2	23.9	23.3	17.9
Lead and zinc.....	16.6	16.5	16.1	14.7
Gold and silver.....	7.9	7.7	7.6	7.1
Miscellaneous.....	2.2	2.2	2.4	1.9
Telephone.....	594	588	586	488
Telegraph.....	38.3	39.4	40.4	46.9
Electric light and power.....	252	250	252	231
Street railways and busses.....	254	253	252	243
Hotels (year round).....	380	378	384	383
Power laundries.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Cleaning and dyeing.....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Class I steam railroads.....	1,325	1,334	1,353	1,367

<sup>1</sup> See footnote 1, table 4.

NOTE.—Annual averages for 1945 and 1946 are presented on p. 917 of this issue.

<sup>2</sup> Data are for production workers only.<sup>3</sup> Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies.<sup>4</sup> The change in definition from "wage earner" to "production worker" in the power laundries and cleaning and dyeing industries results in the omission of driver-salesmen. This causes a significant difference in the data. New series are being prepared.<sup>5</sup> Source: Interstate Commerce Commission.TABLE 4.—Indexes of employment and pay rolls in selected nonmanufacturing industries<sup>1</sup>

[1939 average = 100]

Industry group and industry	Employment indexes				Pay-roll indexes			
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1946
Mining:								
Anthracite.....	82.9	83.4	83.0	81.1	184.7	202.0	212.3	178.3
Bituminous coal.....	90.4	90.8	88.1	92.0	248.7	265.4	258.3	222.8
Metal.....	87.6	87.2	86.2	67.5	162.0	156.8	159.3	92.8
Iron.....	131.5	131.4	132.4	89.3	240.3	229.4	239.7	71.0
Copper.....	101.5	100.4	97.8	74.9	198.0	193.6	192.2	121.3
Lead and zinc.....	106.9	106.4	103.4	94.5	226.2	221.7	220.1	182.2
Gold and silver.....	31.7	31.3	30.7	28.6	51.0	48.3	49.8	38.5
Miscellaneous.....	54.4	54.3	59.6	49.0	84.5	84.7	93.3	75.8
Quarrying and nonmetallic.....	97.1	96.9	99.7	84.3	205.6	204.8	221.9	157.2
Crude petroleum production.....	91.8	92.1	92.6	91.0	153.8	153.8	147.1	142.0
Public utilities:								
Telephone.....	186.9	185.2	184.6	153.7	269.4	267.5	264.5	230.7
Telegraph.....	101.8	104.6	107.4	124.7	185.4	189.1	190.5	176.9
Electric light and power.....	103.2	102.5	103.0	94.7	163.7	159.5	161.6	138.3
Street railways and busses.....	130.9	130.6	130.1	125.7	219.3	216.6	213.6	187.2
Wholesale trade.....	111.9	112.2	114.4	105.5	190.7	189.7	197.2	165.0
Retail trade.....	109.6	110.3	126.5	104.3	187.0	187.7	212.2	157.1
Food.....	111.2	108.5	111.9	106.8	197.1	189.4	194.6	161.7
General merchandise.....	119.5	125.9	171.0	114.6	199.0	213.4	277.2	165.5
Apparel.....	108.2	110.3	135.5	104.8	184.3	188.3	230.2	162.5
Furniture and housefurnishings.....	84.3	84.3	90.4	72.9	143.8	144.1	165.7	112.5
Automotive.....	98.2	98.3	100.2	86.9	172.7	170.4	178.8	140.5
Lumber and building materials.....	113.9	113.4	116.1	103.3	196.8	193.4	200.5	161.5
Hotels (year-round) <sup>2</sup> .....	117.7	117.3	119.1	118.7	216.6	215.1	218.8	199.8
Power laundries.....	109.5	111.0	110.9	109.0	196.1	201.8	201.0	177.0
Cleaning and dyeing.....	117.0	118.2	120.9	121.5	204.7	213.8	219.5	199.1
Class I steam railroads.....	134.1	135.1	136.9	138.4	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup> These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during any part of one pay period ending nearest the 15th of February 1947, as follows:

Mining.—2,700 establishments, 354,000 production workers.

Public utilities.—7,000 establishments, 832,000 employees.

Wholesale trade.—11,100 establishments, 311,000 employees.

Retail trade.—36,200 establishments, 929,000 employees.

Hotels (year-round).—1,200 establishments, 133,000 employees.

Power laundries and cleaning and dyeing.—1,500 establishments, 69,000 production workers.

NOTE.—Annual averages for 1945 and 1946 are presented in table 2 on p. 920 of this issue.

<sup>2</sup> Does not include well drilling or rig building.<sup>3</sup> Cash payments only; additional value of board, room, and tips, not included.<sup>4</sup> Source: Interstate Commerce Commission.<sup>5</sup> Not available.

## Annual Averages of Employment and Pay Rolls, 1945 and 1946

ANNUAL AVERAGES of the estimated number of production workers and indexes of employment and pay rolls for the years 1945 and 1946 are presented below for manufacturing and nonmanufacturing industries.

TABLE 1.—Averages of estimated production workers and indexes of production-worker employment and pay rolls in manufacturing industries, 1945 and 1946 <sup>1</sup>

Industry group and industry	Estimated production workers (in thousands)		Indexes (1939=100)			
			Employment		Pay roll	
	1946	1945	1946	1945	1946	1945
All manufacturing.....	11,630	12,437	142.0	151.8	266.4	293.4
Durable goods.....	5,805	6,951	160.8	192.5	289.3	374.7
Non-durable goods.....	5,825	5,485	127.2	119.7	244.1	214.0
<i>Durable goods</i>						
Iron and steel and their products.....	1,394	1,565	140.6	157.8	242.8	285.4
Blast furnaces, steel works, and rolling mills.....	440.7	458.0	113.5	117.9	180.7	206.0
Gray-iron and semisteel castings.....	79.2	71.4	135.6	122.1	270.7	243.2
Malleable-iron castings.....	23.1	23.7	127.9	131.4	259.3	264.0
Steel castings.....	47.7	62.5	158.5	207.6	274.4	369.9
Cast-iron pipe and fittings.....	17.4	15.1	105.2	91.6	215.9	181.1
Tin cans and other tinware.....	39.7	39.7	125.1	125.0	225.1	213.8
Wire drawn from purchased rods.....	27.6	30.3	125.4	138.0	204.0	223.6
Wirework.....	36.6	31.7	120.3	104.3	229.0	203.4
Cutlery and edge tools.....	24.9	22.9	161.8	148.7	344.7	301.8
Tools (except edge tools, machine tools, files, and saws).....	24.8	25.1	162.3	164.3	315.0	306.7
Hardware.....	44.6	41.6	125.0	116.6	244.3	234.6
Plumbers' supplies.....	25.4	21.1	103.0	85.6	178.5	152.9
Stoves, oil burners, and heating equipment not elsewhere classified.....	54.0	56.2	117.1	121.9	217.7	226.0
Steam and hot-water heating apparatus and steam fittings.....	45.6	48.5	150.6	160.2	275.6	297.1
Stamped and enameled ware and galvanizing.....	74.7	77.1	134.5	138.9	260.5	274.5
Fabricated structural and ornamental metal-work.....	50.5	56.8	142.1	159.8	240.7	287.7
Metal doors, sash, frames, molding, and trim.....	8.6	8.9	111.7	114.9	202.0	212.0
Bolts, nuts, washers, and rivets.....	19.2	22.2	133.9	154.9	227.6	297.8
Forgings, iron and steel.....	25.8	30.6	167.8	199.2	292.8	375.8
Wrought pipe, welded and heavy riveted.....	12.2	19.9	146.0	238.3	247.6	473.5
Screw-machine products and wood screws.....	27.5	35.5	162.8	209.8	312.4	405.1
Steel barrels, kegs, and drums.....	5.6	7.5	91.6	123.0	191.6	239.3
Firearms.....	13.0	21.7	260.2	433.8	501.5	927.7
Electrical machinery.....	509	638	196.6	246.4	342.4	437.6
Electrical equipment.....	269.3	369.6	149.0	204.5	253.2	364.0
Radios and phonographs.....	78.2	94.0	179.8	216.0	345.2	408.8
Communication equipment.....	82.5	89.9	256.8	280.0	449.3	465.6
Machinery, except electrical.....	1,044	1,109	187.6	209.9	341.7	378.8
Machinery and machine-shop products.....	348.2	398.0	172.1	196.7	299.4	350.0
Engines and turbines.....	39.2	56.6	210.3	303.3	399.2	589.7
Tractors.....	47.9	53.5	153.2	171.2	227.4	262.1
Agricultural machinery, excluding tractors.....	38.7	40.8	139.1	146.6	237.2	283.0
Machine tools.....	59.7	66.7	163.1	182.0	272.2	320.0
Machine-tool accessories.....	48.2	56.7	191.5	225.2	310.2	374.1
Textile machinery.....	31.4	26.0	143.1	118.5	268.8	222.7
Pumps and pumping equipment.....	54.3	63.0	224.2	260.1	413.9	525.1
Typewriters.....	18.6	12.9	115.0	79.8	221.3	156.8
Cash registers, adding and calculating machines.....	33.0	27.8	167.9	141.1	303.9	260.0
Washing machines, wringers and driers, domestic.....	10.9	10.7	145.4	143.3	245.4	251.2
Sewing machines, domestic and industrial.....	9.5	9.6	121.0	122.1	228.6	249.8
Refrigerators and refrigeration equipment.....	55.8	45.2	158.6	128.5	254.9	221.0

See footnote at end of table.



TABLE 1.—Averages of estimated production workers and indexes of production-worker employment and pay rolls in manufacturing industries, 1945 and 1946 —Continued

Industry group and industry	Estimated production workers (in thousands)		Indexes (1939=100)			
			Employment		Pay roll	
	1946	1945	1946	1945	1946	1945
<i>Durable goods—Continued</i>						
Transportation equipment, except automobiles.....	480	1,489	302.7	938.4	549.1	1,909.5
Locomotives.....	22.8	31.4	353.0	484.8	715.2	1,046.0
Cars, electric- and steam-railroad.....	45.9	53.1	187.1	216.5	345.1	414.1
Aircraft and parts, excluding aircraft engines.....	129.9	421.3	327.5	1,062.0	601.6	2,040.8
Aircraft engines.....	26.0	136.5	292.2	1,535.4	460.8	2,578.6
Shipbuilding and boatbuilding.....	180.5	665.8	260.7	961.5	462.1	2,016.8
Motoreycles, bicycles, and parts.....	10.2	8.6	146.0	123.5	257.5	226.4
Automobiles.....	661	605	164.3	150.4	262.7	253.8
Nonferrous metals and their products.....	377	387	164.5	168.9	299.8	313.7
Smelting and refining, primary, of nonferrous metals.....	34.1	37.7	123.4	136.3	219.5	250.8
Alloying and rolling and drawing of nonferrous metals except aluminum.....	55.9	63.4	144.0	163.2	268.4	302.5
Clocks and watches.....	26.5	23.7	130.8	116.8	267.3	238.0
Jewelry (precious metals), and jewelers' findings.....	17.1	13.6	118.1	94.1	220.8	166.9
Silverware and plated ware.....	13.9	10.7	114.4	88.5	231.2	162.8
Lighting equipment.....	26.5	23.2	129.2	113.5	219.4	196.9
Aluminum manufactures.....	45.7	57.0	194.2	242.2	325.6	420.0
Sheet-metal work, not elsewhere classified.....	24.6	28.0	131.2	149.2	246.5	281.1
Lumber and timber basic products.....	549	488	130.6	116.2	253.9	206.5
Sawmills and logging camps.....	222.8	210.3	77.4	73.0	150.5	132.8
Planing and plywood mills.....	70.9	66.3	97.7	91.2	183.4	156.5
Furniture and finished lumber products.....	393	344	119.9	104.9	237.9	193.0
Mattresses and bedsprings.....	20.5	16.7	112.0	91.1	208.4	160.1
Furniture.....	160.6	144.0	100.9	90.4	199.5	165.8
Wooden boxes, other than cigar.....	24.9	25.4	98.4	100.2	208.5	198.4
Caskets and other morticians' goods.....	13.3	11.9	106.8	95.7	189.9	163.9
Wood preserving.....	12.1	10.2	107.7	90.7	241.7	197.4
Wood, turned and shaped.....	22.7	20.9	103.2	95.2	207.1	173.1
Stone, clay and glass products.....	397	325	135.2	110.6	243.5	188.0
Glass and glassware.....	101.3	85.5	145.1	122.4	250.6	195.2
Glass products made from purchased glass.....	11.9	10.7	118.9	106.4	220.1	183.8
Cement.....	26.6	17.9	111.5	75.2	183.4	122.4
Brick, tile, and terra cotta.....	59.1	42.7	104.1	75.3	197.5	126.6
Pottery and related products.....	45.7	38.7	138.0	116.9	236.1	184.4
Gypsum.....	5.5	4.1	110.8	83.8	203.4	144.5
Wallboard, plaster (except gypsum), and mineral wool.....	10.3	9.4	127.1	115.4	255.2	216.7
Lime.....	8.7	7.6	91.6	80.5	200.7	161.8
Marble, granite, slate, and other products.....	16.3	13.3	88.0	71.6	142.3	111.2
Abrasives.....	18.6	19.6	240.7	252.9	390.5	429.7
Asbestos products.....	18.5	18.4	116.7	115.8	243.5	236.9
<i>Nondurable goods</i>						
Textile-mill products and other fiber manufactures.....	1,187	1,072	103.8	93.7	222.3	173.6
Cotton manufactures, except smallwares.....	449.1	414.7	113.4	104.7	259.3	204.6
Cotton smallwares.....	14.1	13.2	106.2	99.0	213.0	186.3
Silk and rayon goods.....	91.7	86.3	76.5	72.0	173.2	139.4
Woolen and worsted manufactures except dyeing and finishing.....	158.1	141.4	105.9	94.7	235.6	184.5
Hosiery.....	113.3	98.3	71.3	61.8	137.0	101.0
Knitted cloth.....	11.1	10.1	101.4	92.7	208.7	169.3
Knitted outerwear and knitted gloves.....	30.6	27.6	108.8	98.1	229.7	184.9
Knitted underwear.....	34.9	33.5	90.6	86.9	190.7	162.8
Dyeing and finishing textiles, including woolen and worsted.....	63.4	57.1	94.8	85.3	185.5	147.0
Carpets and rugs, wool.....	23.7	19.2	92.6	75.0	171.9	128.9
Hats, fur-felt.....	10.9	9.3	75.0	63.8	165.6	124.8
Jute goods, except felts.....	3.8	3.3	105.1	92.8	223.9	183.1
Cordage and twine.....	14.9	14.5	122.9	119.5	244.8	227.2

See footnote at end of table.

TABLE 1.—Averages of estimated production workers and indexes of production-worker employment and pay rolls in manufacturing industries, 1945 and 1946 <sup>1</sup>—Continued

Industry group and industry	Estimated production workers (in thousands)		Indexes (1939=100)			
	1946	1945	Employment		Pay Roll	
			1946	1945	1946	1945
<i>Nondurable goods—Continued</i>						
Apparel and other finished textile products.....	1,016	914	128.7	115.8	262.2	209.0
Men's clothing, not elsewhere classified.....	194.2	190.3	88.8	87.1	179.2	153.7
Shirts, collars, and nightwear.....	53.8	49.0	76.3	69.5	162.5	127.2
Underwear and neckwear, men's.....	12.0	11.6	74.4	72.1	175.0	147.6
Work shirts.....	13.4	13.9	99.7	103.2	213.5	197.4
Women's clothing; not elsewhere classified.....	211.9	201.8	78.0	74.3	161.5	136.3
Corsets and allied garments.....	16.0	14.2	84.9	75.9	165.6	133.6
Millinery.....	18.7	18.2	76.8	75.1	131.6	122.2
Handkerchiefs.....	2.3	2.5	48.5	52.2	103.8	97.4
Curtains, draperies, and bedspreads.....	13.4	10.6	79.1	62.8	166.4	126.4
Housefurnishings, other than curtains, etc.....	10.6	10.3	100.0	96.9	196.6	177.0
Textile bags.....	13.8	14.6	114.7	121.7	205.4	207.5
Leather and leather products.....	356	318	102.6	91.6	201.9	168.6
Leather.....	42.8	39.4	90.5	83.5	162.5	148.8
Boot and shoe cut stock and findings.....	17.9	16.2	94.8	85.7	170.9	146.4
Boots and shoes.....	191.4	171.1	87.8	78.5	179.7	148.1
Leather gloves and mittens.....	11.3	11.5	112.7	115.3	214.1	202.7
Trunks and suitcases.....	14.2	12.3	169.6	147.3	316.5	248.0
Food.....	1,090	1,080	128.0	126.4	229.0	209.4
Slaughtering and meat packing.....	132.0	133.6	109.6	110.8	183.5	181.7
Butter.....	24.2	23.3	134.9	129.6	239.4	209.1
Condensed and evaporated milk.....	14.0	14.5	143.9	149.8	265.6	253.4
Ice cream.....	17.8	15.6	113.4	99.4	185.7	147.2
Flour.....	29.7	29.9	119.8	120.9	229.0	210.9
Feeds, prepared.....	21.9	22.2	142.2	144.0	259.9	250.8
Cereal preparations.....	10.4	9.2	140.1	123.9	248.1	224.8
Baking.....	244.8	253.8	106.1	110.0	184.3	173.5
Sugar refining, cane.....	13.2	13.8	93.4	97.7	150.3	155.3
Sugar, beet.....	9.0	8.6	86.6	82.6	157.7	126.9
Confectionery.....	51.9	54.4	104.4	109.4	195.6	187.6
Beverages, nonalcoholic.....	23.8	25.5	111.8	119.8	163.9	161.9
Malt liquors.....	52.6	52.1	145.9	144.4	224.5	217.1
Canning and preserving.....	135.1	132.6	100.5	98.6	234.4	195.5
Tobacco manufactures.....	86	82	92.0	87.4	187.1	164.7
Cigarettes.....	33.3	34.5	121.6	125.7	219.5	203.5
Cigars.....	39.1	33.3	76.7	65.5	170.5	136.6
Tobacco (chewing and smoking) and snuff.....	7.6	8.5	82.8	92.8	143.5	154.1
Paper and allied products.....	367	321	138.1	120.8	250.5	204.3
Paper and pulp.....	165.6	145.5	120.5	105.8	220.3	183.3
Paper goods, other.....	46.4	43.4	123.2	115.4	219.8	189.9
Envelopes.....	10.4	9.4	119.1	108.7	205.9	171.6
Paper bags.....	14.5	12.7	130.4	114.3	240.8	201.3
Paper boxes.....	86.7	77.5	125.3	112.1	227.8	184.7
Printing, publishing, and allied industries.....	396	336	120.7	102.4	194.8	148.2
Newspapers and periodicals.....	130.0	111.8	109.6	94.2	165.5	126.1
Printing, book and job.....	157.6	134.9	124.7	106.8	209.0	162.0
Lithographing.....	28.9	24.7	111.2	94.9	178.4	140.5
Bookbinding.....	31.5	27.5	122.4	106.8	244.3	187.1
Chemicals and allied products.....	534	632	185.3	219.3	323.6	383.1
Paints, varnishes, and colors.....	35.3	29.8	125.3	106.0	198.5	169.8
Drugs, medicines, and insecticides.....	51.8	49.1	188.9	179.2	312.9	274.3
Perfumes and cosmetics.....	12.2	12.3	118.1	119.0	192.7	173.0
Soap.....	14.0	13.3	103.0	97.9	172.0	165.7
Rayon and allied products.....	58.5	54.5	121.1	112.9	204.0	184.0
Chemicals, not elsewhere classified.....	117.5	113.2	168.8	162.8	286.8	284.8
Explosives and safety fuses.....	13.6	72.2	187.0	996.1	295.0	1,509.7
Compressed and liquefied gases.....	5.6	5.8	142.0	146.6	233.5	254.8
Ammunition, small-arms.....	7.5	44.3	174.8	1,040.1	336.9	2,049.0
Fireworks.....	3.0	15.3	256.0	1,319.1	651.0	3,637.8
Cottonseed oil.....	13.9	15.8	91.6	104.3	210.4	222.1
Fertilizers.....	24.0	22.6	128.0	120.6	300.0	276.4
Products of petroleum and coal.....	152	137	143.4	129.7	243.7	227.6
Petroleum refining.....	98.4	92.0	135.2	126.3	224.1	216.8
Coke and byproducts.....	24.5	22.1	112.9	101.7	200.1	183.8
Paving materials.....	1.9	1.6	78.0	67.5	150.7	131.7
Roofing materials.....	11.8	9.6	146.1	118.8	275.4	215.9

See footnote at end of table.

TABLE 1.—Averages of estimated production workers and indexes of production-worker employment and pay rolls in manufacturing industries, 1945 and 1946<sup>1</sup>—Continued

Industry group and industry	Estimated production workers (in thousands)		Indexes (1939=100)			
			Employment		Pay Roll	
	1946	1945	1946	1945	1946	1945
<i>Nondurable goods—Continued</i>						
Rubber products.....	223	196	184.1	161.9	333.2	280.4
Rubber tires and inner tubes.....	105.2	90.5	194.3	167.1	317.8	279.8
Rubber boots and shoes.....	17.9	16.5	120.7	111.2	233.2	207.0
Rubber goods, other.....	70.5	66.6	136.2	128.6	262.6	234.8
Miscellaneous industries.....	416	398	170.1	162.7	318.9	308.6
Instruments (professional and scientific), and fire-control equipment.....	21.4	45.9	193.4	414.9	331.3	770.8
Photographic apparatus.....	24.3	25.4	140.8	147.0	230.6	243.2
Optical instruments and ophthalmic goods.....	21.2	21.6	182.2	185.8	317.0	314.5
Pianos, organs, and parts.....	8.8	6.9	115.3	90.4	213.6	166.0
Games, toys, and dolls.....	21.5	15.3	115.2	82.2	235.4	158.8
Buttons.....	10.2	9.3	93.4	84.4	199.3	170.5
Fire extinguishers.....	2.1	3.8	213.0	379.4	428.4	817.6

<sup>1</sup> Estimates and indexes for the major industry groups have been adjusted to levels indicated by the final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases dated prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Estimates and indexes for individual industries have been adjusted to levels indicated by the 1939 Census of Manufactures, but not to Federal Security Agency data. However, these are now in the process of being adjusted to more current levels. As the industries comprising a single group are revised, they will be released. Issuance of revisions will not be held pending completion of adjustments for all groups.

TABLE 2.—Averages of estimated employees and indexes of employment and pay rolls in selected nonmanufacturing industries, 1945 and 1946

Industry group and industry	Number of employees (in thousands)		Indexes (1939=100)			
			Employment		Pay rolls	
	1946	1945	1946	1945	1946	1945
Mining: <sup>1</sup>						
Anthracite.....	67.6	60.1	81.6	72.6	181.1	137.9
Bituminous coal.....	307	322	82.7	86.9	202.8	195.9
Metal.....	67.2	66.6	76.1	75.5	127.3	123.3
Iron.....	23.8	23.9	118.1	118.8	196.3	201.2
Copper.....	19.4	20.5	81.2	86.2	142.2	142.2
Lead and zinc.....	14.5	14.0	93.5	90.3	181.4	170.6
Gold and silver.....	7.2	5.6	29.0	22.6	41.5	29.2
Miscellaneous.....	2.3	2.6	58.5	65.1	92.9	106.1
Quarrying and nonmetallic.....	(2)	(2)	96.2	80.2	200.8	152.9
Crude petroleum production <sup>2</sup> .....	(2)	(2)	92.9	84.0	147.0	135.2
Public utilities:						
Telephone.....	543	419	170.9	131.8	253.4	177.4
Telegraph.....	42.9	45.4	114.0	120.5	180.0	176.7
Electric light and power.....	243	205	99.4	84.2	148.2	120.1
Street railways and busses.....	248	230	128.2	118.7	200.4	177.8
Wholesale trade.....	(2)	(2)	108.4	97.0	176.0	145.5
Retail trade.....	(2)	(2)	109.7	99.5	174.4	138.5
Food.....	(2)	(2)	105.6	104.1	172.0	145.5
General merchandise.....	(2)	(2)	127.3	116.5	195.1	154.0
Apparel.....	(2)	(2)	115.0	108.6	187.4	156.0
Furniture and housefurnishings.....	(2)	(2)	78.8	64.0	129.6	93.3
Automotive.....	(2)	(2)	92.5	71.8	155.5	110.7
Lumber and building materials.....	(2)	(2)	109.7	93.5	179.0	139.8
Hotels (year-round) <sup>4</sup> .....	385	359	119.3	111.3	207.0	174.8
Power laundries.....	(2)	(2)	110.6	106.4	187.5	165.4
Cleaning and dyeing.....	(2)	(2)	125.7	119.1	220.4	191.9
Class I steam railroads <sup>5</sup> .....	1,359	1,421	137.6	143.8	(2)	(2)

<sup>1</sup> Data are for production workers only.

<sup>2</sup> Not available.

<sup>3</sup> Does not include well drilling or rig building.

<sup>4</sup> Cash payments only; additional value of board, room, and tips, not included.

<sup>5</sup> Source: Interstate Commerce Commission.



## Revised Estimates of Nonagricultural Employment

REVISIONS OF ESTIMATES of the number of employees in nonagricultural establishments are made periodically by the Bureau of Labor Statistics (BLS). The chief purpose of these revisions is to adjust the levels of employment estimates to 1945 bench-mark data made available by unemployment compensation agencies, and the Bureau of Old Age and Survivors Insurance. The present revision also includes a new type of construction estimate which is more consistent with the estimating procedure employed in other industries. In addition, Federal force-account construction employment has been transferred from the construction segment to government.

Each of the industry divisions is affected by the present revision. In trade, construction, government, and finance, service, and miscellaneous, the estimates have been revised back to January 1939. In mining and in transportation, and public utilities, no revisions were necessary prior to 1944. Manufacturing, which had previously been adjusted to 1944 levels, are now revised back to January 1945. In revising manufacturing, adjustments have been made in each of the 20 major industry groups comprising the industry division. However, no revisions have as yet been made in the individual manufacturing industries. Estimates for the industries, currently based on the 1939 Census of Manufacturers, are now in the process of revision. As the estimates of employment in the industries comprising a major group are corrected, they will be released.

*Nature and extent of revisions.*—In all but one of the industry divisions the revisions have resulted in raising the levels of employment. The magnitude of the revisions in trade, mining, and finance, service, and miscellaneous was very substantial. Only minor upward adjustments were necessary in manufacturing, government, and transportation and public utilities. Only in construction has the estimate of employment been lowered. Construction employment, which was formerly derived from the BLS estimates of the dollar volume of construction, is lower by approximately 3 percent in 1946. This results partly from the exclusion of Federal force-account employment, as noted above, and from the shift to estimating employment on the basis of establishment reports to State unemployment compensation agencies.

*Method of computing employment estimates.*—Estimates of changes in the level of employment are based on reports from a sample of establishments, inasmuch as full coverage is deemed to be prohibitively costly and time-consuming. In using a sample, it is essential that a sound basis be established from which estimates may be carried

forward. This basis or "bench mark" is either a complete count or an estimate with a satisfactory degree of accuracy. When a new bench mark becomes available, estimates prepared since the last bench mark are reviewed to determine if any adjustment of level is required. This is the basic principle of employment estimating used by the BLS. It yields a satisfactory compromise between a slow but highly accurate complete count, on the one hand, and a rapid but less accurate sample count on the other.

Briefly, BLS computes employment estimates as follows: first, a bench mark or level of employment is determined; second, a sample of establishments is selected; and third, changes in employment indicated by this reporting sample are applied to the bench mark to determine what the monthly estimates of employment are between bench mark periods. For example, if the latest complete data on employment for an industry is 40,200 in September 1945 and if the industry has a reporting sample of 13 establishments, employing 23,200 workers in September and 23,800 in October, the October estimate is obtained as follows:

$$\frac{40,200 \times 23,800}{23,200} = 41,240$$

*Need for revisions.*—Because the existence of new firms is not readily ascertainable, they are not introduced into the BLS sample until after they have been in operation for some time. This characteristic causes a rather consistent understatement which becomes larger from year to year. It is important, therefore, that estimates not be allowed to go uncorrected for too long a period. Unfortunately, insufficient funds and the pressure of special assignments during the war period have delayed the adjustment of many of the nonmanufacturing industry divisions for several years. For this reason, the present revision corrects for the downward bias that has accumulated in the nonmanufacturing series since 1941. Revisions in some industry divisions have been carried back to 1939 in order to incorporate greater refinements in methodology; also new source materials have become available. For example, improved data on the small firm component of the trade and service industries, supplied by the Bureau of Old Age and Survivors Insurance, made possible refinements in these series back to 1939.

*Sources of bench-mark data.*—In preparing estimates for employment prior to 1939, the Bureau of Labor Statistics used the various industrial censuses, taken by the Bureau of the Census, as a source of bench-mark data. Since that time, data obtained from unemployment compensation agencies and from the Bureau of Old Age and Survivors Insurance are the main bases for bench marks. There are

some notable exceptions. Bench marks for State and local government, for example, are based on data compiled by the Bureau of the Census, while data on Federal Government employment is made available by the Civil Service Commission. For railroads, the source is the Interstate Commerce Commission and for water transportation, the Maritime Commission.

*Projection of estimates.*—In general, data showing month-to-month changes in employment reflect the fluctuations shown by establishments reporting to the BLS. However, the usual estimating method is inadequate in finance and service, where a preponderance of small establishments enter and leave the business population at a high rate. A special sampling procedure has been introduced, involving the scientific selection of a sample of cities and a representative list of blocks in these cities. Data obtained from the establishments in these blocks yield substantially better estimates of month-to-month changes in employment in the service and finance industries. For railroads, complete tabulations of reports are available.

*Presentation of estimates.*—The following table presents revised estimates of employees by industry division from 1939 through 1946. A more detailed technical statement of the methodology used in adjusting each series will be available at a later date.

*Revised estimates of employees<sup>1</sup> in nonagricultural establishments, by industry division, January 1939–December 1946*

[In thousands]

Month and year	Total	Manu- factur- ing	Mining	Con- struc- tion	Trans- porta- tion and public utilities	Trade	Finance, service, and mis- cella- neous	Govern- ment
1939.....	30,287	10,078	845	1,150	2,912	6,705	4,610	3,987
1940.....	32,031	10,780	916	1,294	3,013	7,055	4,781	4,192
1941.....	36,164	12,974	947	1,790	3,248	7,567	5,016	4,622
1942.....	39,697	15,051	983	2,170	3,433	7,481	5,148	5,431
1943.....	42,042	17,381	917	1,567	3,619	7,322	5,187	6,049
1944.....	41,480	17,111	883	1,094	3,798	7,399	5,169	6,026
1945.....	39,977	15,302	826	1,082	3,872	7,654	5,274	5,967
1946.....	40,712	14,365	836	1,493	4,023	8,448	5,954	5,595
1939: January.....	28,945	9,535	879	927	2,787	6,432	4,472	3,913
February.....	29,026	9,671	875	916	2,792	6,417	4,469	3,886
March.....	29,436	9,787	875	1,035	2,813	6,493	4,518	3,915
April.....	29,418	9,787	590	1,132	2,847	6,572	4,564	3,926
May.....	29,768	9,732	701	1,234	2,872	6,618	4,649	3,962
June.....	30,132	9,775	842	1,272	2,934	6,664	4,688	3,957
July.....	30,108	9,817	836	1,285	2,941	6,602	4,690	3,937
August.....	30,512	10,117	853	1,312	2,947	6,608	4,702	3,973
September.....	31,254	10,489	883	1,285	2,994	6,788	4,724	4,091
October.....	31,629	10,780	931	1,234	3,047	6,898	4,634	4,105
November.....	31,491	10,746	943	1,161	3,009	6,980	4,598	4,054
December.....	31,710	10,694	928	1,010	2,960	7,389	4,602	4,127
1940: January.....	30,602	10,453	918	904	2,925	6,707	4,622	4,073
February.....	30,632	10,475	916	930	2,934	6,701	4,628	4,048
March.....	30,953	10,439	916	1,015	2,930	6,902	4,684	4,067
April.....	31,023	10,343	899	1,146	2,946	6,854	4,749	4,086
May.....	31,353	10,298	902	1,260	2,996	6,945	4,815	4,137
June.....	31,619	10,353	894	1,300	3,028	7,021	4,850	4,173

See footnote at end of table.



Revised estimates of employee<sup>1</sup> in nonagricultural establishments, by industry division,  
January 1939–December 1946—Continued

[In thousands]

Month and year	Total	Manu- factur- ing	Mining	Con- struc- tion	Trans- porta- tion and public utilities	Trade	Finance, service, and mis- cella- neous	Govern- ment
1940: July.....	31,644	10,411	907	1,342	3,039	6,929	4,843	4,173
August.....	32,210	10,830	919	1,371	3,060	6,964	4,870	4,196
September.....	33,001	11,182	927	1,469	3,085	7,156	4,873	4,309
October.....	33,416	11,405	934	1,550	3,102	7,254	4,840	4,331
November.....	33,616	11,523	934	1,607	3,069	7,369	4,803	4,311
December.....	34,301	11,647	931	1,629	3,045	7,854	4,800	4,395
1941: January.....	33,410	11,603	933	1,606	3,011	7,094	4,822	4,341
February.....	33,703	11,874	930	1,567	3,020	7,116	4,829	4,367
March.....	34,196	12,113	943	1,532	3,068	7,219	4,893	4,428
April.....	34,763	12,394	937	1,644	3,145	7,467	4,986	4,490
May.....	35,615	12,648	944	1,738	3,224	7,435	5,052	4,574
June.....	36,283	12,967	960	1,803	3,287	7,552	5,092	4,622
July.....	36,843	13,275	981	1,956	3,341	7,540	5,112	4,638
August.....	37,351	13,540	1,002	2,014	3,380	7,609	5,133	4,673
September.....	37,906	13,784	1,010	2,035	3,398	7,731	5,126	4,822
October.....	37,964	13,847	1,013	1,969	3,405	7,816	5,076	4,838
November.....	37,831	13,821	1,009	1,879	3,369	7,916	5,041	4,796
December.....	38,099	13,817	1,007	1,734	3,333	8,303	5,029	4,876
1942: January.....	37,185	13,740	1,007	1,675	3,305	7,532	5,044	4,882
February.....	37,346	13,971	993	1,649	3,290	7,458	5,023	4,902
March.....	37,903	14,184	988	1,834	3,314	7,482	5,081	5,020
April.....	38,577	14,391	989	2,040	3,385	7,465	5,140	5,167
May.....	39,129	14,576	989	2,222	3,419	7,453	5,188	5,282
June.....	39,673	14,791	987	2,403	3,453	7,396	5,236	5,407
July.....	40,162	15,143	994	2,565	3,485	7,291	5,232	5,452
August.....	40,672	15,519	991	2,577	3,500	7,283	5,234	5,568
September.....	41,158	15,800	981	2,530	3,517	7,361	5,229	5,740
October.....	41,296	15,956	970	2,370	3,519	7,511	5,173	5,797
November.....	41,375	16,128	961	2,212	3,503	7,599	5,112	5,860
December.....	41,892	16,415	951	1,957	3,507	7,945	5,087	6,030
1943: January.....	41,000	16,570	934	1,835	3,487	7,208	5,100	5,866
February.....	41,206	16,816	935	1,780	3,485	7,154	5,098	5,938
March.....	41,653	17,037	931	1,764	3,520	7,204	5,142	6,055
April.....	41,962	17,129	922	1,741	3,570	7,307	5,179	6,114
May.....	42,004	17,181	908	1,694	3,597	7,233	5,229	6,162
June.....	42,365	17,431	915	1,669	3,656	7,289	5,284	6,121
July.....	42,352	17,618	915	1,580	3,689	7,225	5,250	6,075
August.....	42,319	17,736	912	1,524	3,694	7,169	5,235	6,049
September.....	42,269	17,696	915	1,451	3,688	7,241	5,237	6,041
October.....	42,323	17,777	910	1,343	3,689	7,398	5,185	6,021
November.....	42,423	17,858	901	1,272	3,683	7,576	5,160	5,973
December.....	42,638	17,722	907	1,147	3,669	7,865	5,149	6,179
1944: January.....	41,611	17,587	900	1,114	3,664	7,272	5,119	5,955
February.....	41,552	17,581	901	1,068	3,704	7,237	5,116	5,945
March.....	41,552	17,447	896	1,061	3,737	7,286	5,156	5,969
April.....	41,443	17,235	892	1,075	3,780	7,311	5,170	5,980
May.....	41,420	17,105	890	1,109	3,809	7,287	5,205	6,015
June.....	41,558	17,116	895	1,147	3,853	7,300	5,271	5,976
July.....	41,473	17,091	885	1,153	3,860	7,280	5,224	5,980
August.....	41,467	17,085	886	1,157	3,867	7,258	5,209	6,015
September.....	41,355	16,888	878	1,125	3,846	7,348	5,204	6,066
October.....	41,236	16,758	865	1,092	3,820	7,515	5,146	6,040
November.....	41,267	16,695	859	1,057	3,819	7,686	5,119	6,032
December.....	41,841	16,747	852	969	3,816	8,010	5,099	6,348

See footnote at end of table.

Revised estimates<sup>1</sup> of employees<sup>1</sup> in nonagricultural establishments by industry division,  
January 1939-December 1946—Continued

[In thousands]

Month and year	Total	Manu- factur- ing	Mining	Con- struc- tion	Trans- porta- tion and public utilities	Trade	Finance, service, and mis- cella- neous	Govern- ment
1945: January.....	40,878	16,753	848	950	3,780	7,450	5,082	6,015
February.....	40,939	16,801	845	955	3,811	7,423	5,081	6,023
March.....	41,094	16,728	844	985	3,839	7,520	5,111	6,067
April.....	40,830	16,528	806	1,030	3,843	7,425	5,136	6,062
May.....	40,680	16,292	769	1,059	3,858	7,470	5,166	6,066
June.....	40,648	16,061	843	1,102	3,906	7,475	5,247	6,014
July.....	40,338	15,693	832	1,136	3,927	7,473	5,275	6,002
August.....	40,047	15,343	832	1,170	3,922	7,482	5,290	6,008
September.....	38,256	13,414	833	1,159	3,876	7,656	5,296	6,022
October.....	38,192	13,307	762	1,164	3,861	7,871	5,437	5,790
November.....	38,613	13,367	843	1,171	3,912	8,118	5,534	5,668
December.....	39,210	13,331	855	1,108	3,932	8,491	5,631	5,862
1946: January.....	38,745	13,499	864	1,085	3,932	8,056	5,696	5,613
February.....	38,148	12,751	864	1,101	3,943	8,090	5,776	5,623
March.....	39,184	13,433	857	1,203	3,983	8,197	5,840	5,671
April.....	39,908	14,045	542	1,356	3,991	8,329	5,984	5,661
May.....	40,258	14,159	753	1,438	3,946	8,302	5,965	5,695
June.....	40,680	14,371	864	1,532	3,996	8,342	5,961	5,614
July.....	40,877	14,526	873	1,627	4,051	8,337	5,975	5,488
August.....	41,466	14,876	886	1,713	4,103	8,402	5,984	5,502
September.....	41,848	15,035	884	1,747	4,064	8,523	5,990	5,605
October.....	42,065	15,064	883	1,753	4,093	8,667	6,054	5,551
November.....	42,439	15,271	883	1,713	4,101	8,898	6,098	5,475
December.....	42,928	15,348	874	1,644	4,071	9,234	6,119	5,638

<sup>1</sup> Estimates include all full- and part-time wage and salary workers who worked or received pay during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded. These estimates incorporate the revised estimates adjusted to final 1945 Unemployment Compensation data and, therefore, supersede data shown in mimeographed releases dated prior to April 1947 and Monthly Labor Reviews dated prior to May 1947. Data from January 1939 forward were affected by this revision.

## Adjusted Manufacturing Series of Employment and Pay Rolls

REVISED MONTHLY ESTIMATES of manufacturing production workers and indexes of employment and pay rolls by major industry group from January 1945 to December 1946 are presented below. Hours and earnings were not affected by this adjustment.

*Revised estimates of manufacturing production workers and indexes of employment and pay rolls, by major industry group, January 1945–December 1946*<sup>1</sup>

Year and month	All manufacturing division			Durable goods division			Nondurable goods division		
	Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)	
		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls
1945.....	12,437	151.8	293.4	6,951	192.5	374.7	5,485	119.7	214.0
1946.....	11,630	142.0	266.4	5,805	160.8	289.3	5,825	127.2	244.1
<b>1945</b>									
January.....	13,783	168.2	347.0	8,194	226.9	476.9	5,589	122.0	220.0
February.....	13,819	168.7	347.5	8,219	227.6	476.7	5,600	122.2	221.1
March.....	13,739	167.7	345.7	8,150	225.7	472.1	5,589	122.0	222.2
April.....	13,537	165.2	338.5	8,001	221.6	460.6	5,536	120.8	219.1
May.....	13,310	162.5	324.9	7,816	216.4	438.1	5,494	119.9	214.1
June.....	13,105	160.0	321.8	7,582	210.0	426.4	5,523	120.6	219.6
July.....	12,743	155.6	306.6	7,279	201.6	400.4	5,464	119.3	214.9
August.....	12,431	151.7	273.6	6,983	193.4	346.0	5,448	118.9	202.8
September.....	10,718	130.8	228.7	5,362	148.5	252.5	5,356	116.9	205.5
October.....	10,639	129.9	227.7	5,281	146.2	250.5	5,358	117.0	205.4
November.....	10,692	130.5	227.7	5,310	147.1	248.4	5,382	117.5	207.4
December.....	10,725	130.9	231.4	5,239	145.1	247.4	5,486	119.8	215.7
<b>1946</b>									
January.....	10,864	132.6	234.1	5,342	147.9	249.9	5,522	120.5	218.7
February.....	10,147	123.9	214.3	4,522	125.2	204.2	5,625	122.8	224.1
March.....	10,819	132.1	238.3	5,118	141.7	244.8	5,701	124.4	232.1
April.....	11,347	138.5	254.8	5,629	155.9	275.7	5,718	124.8	234.4
May.....	11,433	139.6	253.5	5,740	159.0	275.1	5,693	124.3	232.3
June.....	11,623	141.9	262.8	5,865	162.4	289.1	5,758	125.7	237.0
July.....	11,767	143.6	267.1	5,984	165.7	296.3	5,783	126.2	238.5
August.....	12,101	147.7	284.4	6,160	170.6	316.1	5,941	129.7	253.4
September.....	12,244	149.5	290.3	6,249	173.1	323.3	5,995	130.9	258.1
October.....	12,253	149.6	292.8	6,281	173.9	328.1	5,972	130.4	258.3
November.....	12,449	152.0	298.2	6,379	176.7	331.1	6,070	132.5	266.0
December.....	12,514	152.8	306.2	6,393	177.0	337.3	6,121	133.6	275.8

See footnote at end of table.



Revised estimates of manufacturing production workers and indexes of employment and pay rolls, by major industry group, January 1945-December 1946<sup>1</sup>—Continued

Year and month	Iron and steel and their products			Electrical machinery			Machinery, except electrical		
	Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)	
		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls
1945.....	1,565	157.8	285.4	638	246.4	437.6	1,109	209.9	378.8
1946.....	1,394	140.6	242.8	509	196.6	342.4	1,044	197.6	341.7
1945									
January.....	1,739	175.4	331.7	733	282.8	530.3	1,221	231.1	442.9
February.....	1,761	177.6	335.8	736	284.1	534.0	1,232	233.1	448.8
March.....	1,762	177.7	339.2	738	284.7	537.2	1,226	232.1	446.0
April.....	1,745	176.0	336.3	731	281.9	529.0	1,210	228.9	435.8
May.....	1,730	174.5	327.6	723	278.9	514.0	1,194	225.9	415.8
June.....	1,685	169.9	318.8	713	275.2	505.8	1,180	223.4	420.4
July.....	1,616	163.0	301.1	683	263.7	478.0	1,148	217.2	399.2
August.....	1,547	156.0	264.0	663	255.8	413.8	1,116	211.3	351.7
September.....	1,278	128.9	212.5	460	177.6	278.0	944	178.6	294.4
October.....	1,279	129.0	213.4	483	186.5	299.3	940	177.8	294.3
November.....	1,296	130.7	216.8	496	191.5	312.6	941	178.2	293.1
December.....	1,337	134.9	227.5	502	193.6	319.5	959	181.5	303.5
1946									
January.....	1,358	136.9	223.7	493	190.4	313.5	991	187.5	308.5
February.....	877	88.4	132.6	353	136.1	214.2	861	163.0	264.0
March.....	1,313	132.4	225.1	380	146.6	232.3	910	172.3	287.3
April.....	1,395	140.7	242.1	461	177.9	296.6	983	186.1	312.9
May.....	1,380	139.1	232.3	503	194.2	323.0	1,025	194.1	322.5
June.....	1,403	141.5	240.3	521	201.2	347.9	1,049	198.6	342.0
July.....	1,445	145.7	247.5	526	203.2	351.0	1,066	201.8	346.2
August.....	1,490	150.2	265.9	545	210.5	378.9	1,092	206.6	362.2
September.....	1,514	152.7	273.6	563	217.3	397.2	1,112	210.3	376.2
October.....	1,500	151.2	273.7	579	223.4	408.1	1,131	214.0	388.0
November.....	1,533	154.9	280.8	590	227.6	416.0	1,150	217.7	390.1
December.....	1,521	153.4	276.2	597	230.6	430.2	1,161	219.6	399.9
	Transportation equipment, except automobiles			Automobiles			Nonferrous metals and their products		
1945.....	1,489	938.4	1,909.5	605	150.4	253.8	387	168.9	313.7
1946.....	480	302.7	549.1	661	164.3	262.7	377	164.5	299.8
1945									
January.....	2,185	1,376.6	2,993.6	716	177.9	335.4	417	182.0	354.2
February.....	2,157	1,359.2	2,912.7	719	178.7	337.5	426	185.8	362.1
March.....	2,094	1,319.5	2,812.8	711	176.8	330.8	432	188.7	369.9
April.....	2,007	1,264.3	2,671.9	706	175.4	324.4	432	188.6	367.7
May.....	1,879	1,184.1	2,460.6	683	169.8	300.2	432	188.3	356.6
June.....	1,735	1,093.3	2,295.4	662	164.6	290.8	422	184.1	348.8
July.....	1,637	1,031.3	2,145.9	624	155.0	262.7	399	173.9	324.9
August.....	1,522	958.9	1,805.8	577	143.3	190.2	392	171.1	302.8
September.....	816	514.0	873.9	441	109.6	156.6	312	136.0	230.4
October.....	691	435.3	738.8	477	118.5	177.9	316	137.8	238.1
November.....	594	374.2	604.4	544	135.2	199.1	330	144.0	251.1
December.....	556	350.1	598.0	402	99.9	140.4	336	146.7	257.3
1946									
January.....	538	338.7	579.3	431	107.2	159.1	343	149.6	262.5
February.....	484	305.1	509.4	430	106.8	147.6	294	128.2	226.9
March.....	476	299.9	525.5	464	115.3	173.0	324	141.4	252.1
April.....	504	317.6	578.7	646	160.5	250.7	352	153.4	276.2
May.....	491	309.2	558.3	675	167.8	241.4	360	157.0	281.4
June.....	479	301.6	557.5	693	172.3	259.9	378	164.9	298.6
July.....	476	299.9	558.7	725	180.2	292.8	392	171.2	303.9
August.....	468	294.7	553.1	755	187.8	319.0	406	177.3	324.2
September.....	455	286.8	524.1	788	196.0	330.3	411	179.5	331.8
October.....	457	287.8	542.3	774	192.3	324.3	417	182.0	338.8
November.....	464	292.4	531.1	778	193.3	325.7	422	184.0	345.3
December.....	473	298.2	571.2	774	192.3	328.9	426	185.8	356.3

See footnote at end of table.

*Revised estimates of manufacturing production workers and indexes of employment and pay rolls, by major industry, group, January 1945–December 1946*<sup>1</sup>—Continued

Year and month	Lumber and timber basic products			Furniture and finished lumber products			Stone, clay, and glass products		
	Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)	
		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls
1945.....	488	116.2	209.5	344	104.9	193.0	325	110.6	188.0
1946.....	549	130.6	253.9	393	119.9	237.9	397	135.2	243.5
<i>1945</i>									
January.....	508	120.9	217.8	351	106.9	200.7	324	110.4	186.8
February.....	509	121.0	222.0	355	108.3	205.3	324	110.5	188.3
March.....	506	120.5	221.5	355	108.2	205.1	326	111.1	192.7
April.....	496	118.0	222.1	351	106.9	202.9	323	109.9	193.7
May.....	501	119.3	222.8	351	107.0	200.3	323	109.9	189.2
June.....	502	119.5	230.1	354	107.8	203.4	329	112.2	194.2
July.....	498	118.5	211.8	348	106.2	196.5	326	111.1	190.8
August.....	496	118.1	207.6	344	104.7	179.1	326	111.1	184.6
September.....	477	113.5	202.3	316	96.2	170.7	318	108.4	180.3
October.....	447	106.4	186.8	320	97.5	175.8	328	111.7	188.0
November.....	454	107.9	182.7	334	101.8	180.4	321	109.3	180.5
December.....	467	111.1	186.9	351	106.9	196.0	329	112.0	186.6
<i>1946</i>									
January.....	482	114.5	194.4	362	110.5	201.1	344	117.3	190.4
February.....	487	116.0	205.6	370	112.7	208.9	366	124.7	210.0
March.....	499	118.6	219.1	376	114.6	217.9	376	128.3	223.1
April.....	521	123.8	231.7	382	116.3	223.9	385	131.1	230.3
May.....	537	127.8	244.2	381	116.2	221.6	388	132.3	230.2
June.....	553	131.6	261.9	391	119.1	233.3	398	135.6	241.4
July.....	561	133.5	252.1	392	119.6	231.9	401	136.6	242.2
August.....	584	139.0	285.6	405	123.4	250.0	415	141.6	260.1
September.....	583	138.6	285.2	405	123.5	254.4	418	142.5	267.0
October.....	590	140.4	292.0	411	125.2	264.2	422	143.8	271.3
November.....	599	142.4	284.7	419	127.7	268.5	422	143.9	274.8
December.....	592	140.8	290.6	425	129.6	279.1	424	144.4	281.6
Year and month	Textile-mill products and other fiber manufactures			Apparel and other finished textile products			Leather and leather products		
	Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)	
		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls
1945.....	1,072	93.7	173.6	914	115.8	209.0	318	91.6	168.6
1946.....	1,187	103.8	222.3	1,016	128.7	262.2	356	102.6	201.9
<i>1945</i>									
January.....	1,109	97.0	178.0	934	118.3	217.7	319	91.9	166.9
February.....	1,101	96.3	177.3	940	119.1	227.3	319	91.9	169.1
March.....	1,093	95.6	177.3	944	119.5	232.8	318	91.8	172.9
April.....	1,072	93.8	172.6	930	117.8	219.2	315	90.8	170.2
May.....	1,062	92.9	167.9	915	115.9	203.9	314	90.5	164.6
June.....	1,068	93.4	176.8	912	115.5	207.0	319	92.0	174.4
July.....	1,047	91.6	172.1	865	109.6	190.5	315	90.9	169.3
August.....	1,045	91.4	161.5	888	112.4	178.8	316	91.0	161.1
September.....	1,046	91.4	168.9	896	113.5	205.0	307	88.6	161.3
October.....	1,051	91.9	170.4	912	115.6	210.0	316	90.9	166.2
November.....	1,057	92.4	173.9	914	115.8	204.6	323	93.1	166.5
December.....	1,107	96.8	187.0	923	116.9	211.4	333	95.9	180.5
<i>1946</i>									
January.....	1,121	98.0	189.6	939	119.0	224.2	340	98.1	186.5
February.....	1,150	100.6	202.5	976	123.7	236.1	351	101.1	195.9
March.....	1,169	102.2	211.4	998	126.4	259.1	358	103.1	203.6
April.....	1,176	102.8	214.4	1,000	126.7	259.0	358	103.3	205.3
May.....	1,178	103.0	213.5	995	126.0	254.2	359	103.4	204.6
June.....	1,191	104.1	217.2	1,013	128.3	258.6	360	103.8	204.9
July.....	1,175	102.8	213.3	983	124.5	240.3	357	103.0	198.7
August.....	1,189	104.0	229.4	1,030	130.5	272.5	356	102.7	199.6
September.....	1,204	105.2	235.5	1,049	132.9	283.0	358	103.1	204.7
October.....	1,215	106.2	241.1	1,065	134.9	283.6	355	102.2	199.5
November.....	1,230	107.6	246.0	1,063	134.6	283.2	357	102.9	201.6
December.....	1,242	108.6	253.7	1,079	136.6	292.7	362	104.4	218.3

See footnote at end of table.

Revised estimates of manufacturing production workers and indexes if employment and pay rolls, by major endustry groups, January 1945-December 1946<sup>1</sup>—Continued

Year and month	Food			Tobacco manufacturers			Paper and allied products		
	Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)	
		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls
1945.....	1,080	126.4	209.4	82	87.4	164.7	321	120.8	204.3
1946.....	1,094	128.0	229.0	86	92.0	187.1	367	138.1	250.5
<i>1945</i>									
January.....	1,050	122.9	203.0	82	88.2	167.0	319	120.3	201.4
February.....	1,038	121.5	197.0	82	88.2	165.6	321	121.0	202.6
March.....	1,024	119.9	196.0	82	87.8	166.0	320	120.5	203.3
April.....	1,025	119.9	197.0	81	86.8	160.8	315	118.7	201.6
May.....	1,021	119.5	196.4	80	85.6	157.2	314	118.2	196.6
June.....	1,046	122.4	205.9	80	86.1	164.5	319	120.1	204.7
July.....	1,110	129.9	216.7	78	83.4	151.9	314	118.2	201.2
August.....	1,121	131.2	209.1	79	84.3	149.3	315	118.7	191.9
September.....	1,201	140.5	230.1	83	89.5	176.0	316	118.9	203.2
October.....	1,133	132.6	219.2	86	92.2	181.7	325	122.3	209.4
November.....	1,101	128.9	218.2	83	89.2	172.2	330	124.4	213.6
December.....	1,095	128.1	223.8	82	87.8	164.1	339	127.8	221.6
<i>1946</i>									
January.....	1,067	124.9	218.3	81	87.0	166.7	345	130.1	224.3
February.....	1,061	124.1	214.7	81	87.3	165.2	352	132.5	228.0
March.....	1,050	122.8	209.7	82	87.9	171.3	357	134.4	235.4
April.....	1,039	121.6	208.5	85	90.8	174.6	361	136.0	238.6
May.....	1,024	119.9	205.1	85	91.2	181.1	363	136.8	240.0
June.....	1,033	120.9	208.2	86	92.1	184.1	368	138.8	247.0
July.....	1,119	131.0	235.1	85	90.7	178.3	365	137.4	246.4
August.....	1,184	138.6	254.3	86	91.7	186.2	369	139.2	256.5
September.....	1,175	137.5	246.5	87	93.5	196.0	372	140.0	259.8
October.....	1,091	127.7	232.2	89	95.8	207.4	376	141.7	268.5
November.....	1,141	133.5	252.0	91	97.6	212.7	383	144.3	276.6
December.....	1,139	133.3	263.3	92	98.3	222.0	387	145.7	284.5
Year and month	Printing, publishing, and allied industries			Chemicals and allied products			Products of petroleum and coal		
	Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)	
		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls
1945.....	336	102.4	148.2	632	219.3	383.1	137	129.7	227.6
1946.....	396	120.7	194.8	534	185.3	323.6	152	143.4	243.7
<i>1945</i>									
January.....	325	99.2	140.5	688	238.9	421.4	134	126.8	222.9
February.....	326	99.4	139.5	703	243.8	429.5	135	127.4	225.5
March.....	327	99.6	141.5	706	245.1	436.0	136	128.1	227.2
April.....	325	99.2	140.9	704	244.1	434.7	136	128.3	233.7
May.....	327	99.9	142.2	695	241.3	433.9	137	129.2	232.1
June.....	329	100.4	143.7	686	238.1	427.2	138	130.3	235.8
July.....	328	100.1	142.5	661	229.2	408.4	139	131.4	240.8
August.....	333	101.6	144.7	616	213.8	366.5	139	131.3	235.8
September.....	335	102.2	152.8	537	186.3	316.3	134	126.4	217.5
October.....	348	106.0	155.9	527	182.7	308.9	134	126.7	203.1
November.....	359	109.6	164.0	529	183.6	306.0	143	134.7	228.6
December.....	367	111.9	169.6	531	184.1	308.3	144	135.7	228.0
<i>1946</i>									
January.....	372	113.3	172.2	533	184.8	310.7	146	137.5	226.7
February.....	381	116.2	177.4	536	185.8	310.7	142	134.2	227.1
March.....	386	117.7	183.8	540	187.3	317.0	149	140.4	237.2
April.....	389	118.5	185.6	539	187.1	318.8	150	141.9	238.9
May.....	389	118.7	186.4	527	182.8	311.1	149	140.6	234.4
June.....	393	119.9	191.3	522	181.3	313.0	153	144.5	242.5
July.....	397	121.1	193.3	516	178.9	315.5	155	146.7	251.0
August.....	399	121.6	198.1	520	180.5	320.0	156	147.4	253.1
September.....	401	122.3	203.1	530	184.0	329.1	157	147.8	257.3
October.....	410	125.0	208.4	539	187.2	335.3	155	146.8	252.7
November.....	415	126.6	214.0	550	190.9	345.0	155	146.6	252.6
December.....	420	127.9	223.9	555	192.5	357.0	155	146.1	250.9

See footnote at end of table.



Revised estimates of manufacturing production workers and indexes of employment and pay rolls, by major industry group, January 1945–December 1946<sup>1</sup>—Continued

Year and month	Rubber products			Miscellaneous industries		
	Estimated number of production workers (thousands)	Indexes (1939 average=100)		Estimated number of production workers (thousands)	Indexes (1939 average=100)	
		Em- ploy- ment	Pay rolls		Em- ploy- ment	Pay rolls
1945.....	196	161.9	289.4	398	162.7	308.6
1946.....	223	184.1	333.2	416	170.1	318.9
<i>1945</i>						
January.....	209	172.4	337.9	420	171.5	341.6
February.....	209	172.9	338.8	426	174.1	346.5
March.....	209	172.6	314.5	430	175.8	351.0
April.....	204	168.9	314.6	429	175.3	349.2
May.....	200	165.8	298.3	429	175.4	341.5
June.....	198	163.5	302.5	428	174.9	343.4
July.....	193	159.4	296.6	414	169.3	321.3
August.....	189	156.5	263.2	407	166.4	298.2
September.....	163	134.9	228.6	338	138.0	241.8
October.....	184	152.4	251.1	342	139.8	245.7
November.....	191	158.0	254.5	352	143.7	253.6
December.....	201	165.9	271.7	364	148.7	269.3
<i>1946</i>						
January.....	206	170.2	286.0	372	151.9	273.6
February.....	211	174.5	287.7	384	156.8	280.6
March.....	216	178.7	298.2	396	161.9	295.7
April.....	217	179.1	319.7	404	165.1	304.2
May.....	217	179.7	322.1	407	166.3	303.1
June.....	221	182.9	331.4	418	170.8	318.4
July.....	214	177.0	321.4	417	170.5	314.2
August.....	223	184.0	336.9	429	175.1	329.3
September.....	229	189.1	363.9	433	176.9	339.3
October.....	235	194.8	361.3	441	180.2	350.7
November.....	240	198.8	377.4	445	182.0	354.0
December.....	242	200.1	392.2	448	183.2	363.2

<sup>1</sup> Estimates and indexes for the major industry groups have been adjusted to levels indicated by the final 1945 data made available by the Bureau of Employment Security of the Federal Security Agency and supersede data shown in mimeographed releases dated prior to April 1947, and Monthly Labor Reviews dated prior to May 1947. The present adjustment affects data from 1945 to the present only. Hours and earnings data are not affected by this adjustment.

## Labor Turn-Over in Manufacturing, Mining, and Public Utilities, February 1947

Hiring in manufacturing industries dropped to a rate of 49 per 1,000 employees in February. This rate was the lowest for February since 1941, but nevertheless indicates an active labor market.

Job shifting, as indicated by the quit rate, was also substantially lower in February. Labor turn-over rates normally decline in February, partly because of the shorter calendar work month. However, the quit rate of 31 per 1,000 is about 5 times the prewar rate.

While lay-off rates declined for manufacturing as a whole, sizable increases in lay-offs were reported in the food and tobacco groups, and smaller increases were noted in the nonferrous metals, and stone, clay, and glass groups. Seasonal livestock shortages and the observance of Lent were primarily responsible for nearly doubling the lay-off rate in the meat products industry. In tobacco, lay-off rates rose from 8 to 16 per 1,000 employees as production schedules were curtailed to offset heavy inventories.

Accession rates continued higher for women than for men in all nondurable and in more than half of the durable goods groups. However, women's quit rates were also higher in all but two industrial groups.

For more than a year, involuntary separation rates—mostly lay-offs and discharges—were lower for women than for men in all manufacturing industries combined. In February 1947, however, the rates for both men and women were approximately the same. Lay-offs and discharges actually occurred at a greater rate for women than for men in the electrical machinery group where large numbers of women are traditionally employed.

TABLE 1.—Monthly labor turn-over rates (per 100 employees) in manufacturing industries <sup>1</sup>

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Total separation:</b>												
1947.....	4.9	<sup>2</sup> 4.4										
1946.....	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	6.3	4.9	4.5
1945.....	6.2	6.0	6.8	6.6	7.0	7.9	7.7	17.9	12.0	8.6	7.1	5.9
1943.....	7.1	7.1	7.7	7.5	6.7	7.1	7.6	8.3	8.1	7.0	6.4	6.6
1939.....	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
<b>Quit:</b>												
1947.....	3.5	<sup>2</sup> 3.1										
1946.....	4.3	3.9	4.2	4.3	4.2	4.0	4.6	5.3	5.3	4.7	3.7	3.0
1945.....	4.6	4.3	5.0	4.8	4.8	5.1	5.2	6.2	6.7	5.6	4.7	4.0
1943.....	4.5	4.7	5.4	5.4	4.8	4.2	5.6	6.3	6.3	5.2	4.5	4.4
1939.....	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
<b>Discharge:</b>												
1947.....	.4	<sup>2</sup> .4										
1946.....	.5	.5	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4
1945.....	.7	.7	.7	.6	.6	.7	.6	.7	.6	.5	.5	.4
1943.....	.5	.5	.6	.5	.6	.6	.7	.7	.6	.6	.6	.6
1939.....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
<b>Lay-off: <sup>3</sup></b>												
1947.....	.9	<sup>2</sup> .8										
1946.....	1.8	1.7	1.8	1.4	1.5	1.2	.6	.7	1.0	1.0	.7	1.0
1945.....	.6	.7	.7	.8	1.2	1.7	1.5	10.7	4.5	2.3	1.7	1.3
1943.....	.7	.5	.5	.6	.5	.5	.5	.5	.5	.5	.7	1.0
1939.....	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
<b>Miscellaneous including military: <sup>4</sup></b>												
1947.....	.1	<sup>2</sup> .1										
1946.....	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1
1945.....	.3	.3	.4	.4	.4	.4	.4	.3	.2	.2	.2	.2
1943.....	1.4	1.4	1.2	1.0	.8	.8	.8	.8	.7	.7	.6	.6
<b>Accession:</b>												
1947.....	6.0	<sup>2</sup> 4.9										
1946.....	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	6.8	5.7	4.3
1945.....	7.0	5.0	4.9	4.7	5.0	5.9	5.8	5.9	7.4	8.6	8.7	6.9
1943.....	8.3	7.9	8.3	7.4	7.2	8.4	7.8	7.6	7.7	7.2	6.6	5.2
1939.....	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.2

<sup>1</sup> Month-to-month employment changes as indicated by labor turn-over rates are not precisely comparable to those shown by the Bureau's employment and pay-roll reports, as the former are based on data for the entire month while the latter refer, for the most part, to a one-week period ending nearest the middle of the month. In addition, labor turn-over data, beginning in January 1943, refer to all employees, whereas the employment and pay-roll reports relate only to production workers. The turn-over sample is not so extensive as that of the employment and pay-roll survey—proportionately fewer small plants are included; printing and publishing, and certain season industries, such as canning and preserving, are not covered. Plants on strike are also excluded. For the month of January rates are based on reports from 6,700 establishments, employing 4,453,000 workers.

<sup>2</sup> Preliminary.

<sup>3</sup> Including temporary, indeterminate, and permanent lay-offs.

<sup>4</sup> In 1939, miscellaneous separations were included with quits.



TABLE 2.—Monthly labor turn-over rates (per 100 employees) in selected groups and industries,<sup>1</sup> February 1947<sup>2</sup>

Group and industry	Total separation		Quit		Discharge		Lay-off		Miscellaneous including military		Total accession	
	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.
<b>Manufacturing</b>												
Durable goods.....	4.4	5.2	3.1	3.5	0.4	0.5	0.8	1.0	0.1	0.2	5.2	6.4
Nondurable goods.....	4.5	4.7	3.2	3.5	.4	.3	.8	.8	.1	.1	4.6	5.5
Iron and steel and their products.....	3.8	4.2	2.8	3.2	.4	.4	.4	.4	.2	.2	4.2	5.8
Blast furnaces, steel works, and rolling mills.....	2.7	3.2	2.1	2.6	.2	.2	.2	.2	.2	.2	3.0	4.1
Gray-iron castings.....	6.9	7.2	5.0	5.7	1.0	.8	.7	.5	.2	.2	7.3	9.7
Malleable-iron castings.....	4.9	6.8	3.9	5.7	.4	.6	.3	.2	.3	.3	6.2	9.2
Steel castings.....	3.5	4.8	2.6	2.8	.3	.6	.5	1.2	.1	.2	3.9	5.3
Cast-iron pipe and fittings.....	4.6	4.2	4.0	3.4	.4	.5	.2	.3	( <sup>3</sup> )	( <sup>3</sup> )	4.5	7.4
Tin cans and other tinware.....	4.8	6.1	3.1	3.8	.6	1.2	1.1	.9	( <sup>3</sup> )	.2	4.1	7.7
Wire products.....	4.0	3.7	2.5	2.8	.4	.4	.9	.3	.2	.2	3.8	4.8
Cutlery and edge tools.....	5.0	6.1	3.5	4.4	1.4	1.3	.1	.3	( <sup>3</sup> )	.1	4.9	8.7
Tools (except edge tools, machine tools, files, and saws).....	4.1	3.9	2.9	3.1	.3	.5	.8	.2	.1	.1	4.0	4.7
Hardware.....	5.5	5.6	4.5	4.6	.4	.5	.5	.2	.1	.3	6.8	7.8
Stoves, oil burners, and heating equipment.....	6.4	6.7	4.6	4.4	1.1	1.0	.6	.7	.1	.6	7.1	10.5
Steam and hot-water heating apparatus and steam fittings.....	5.9	6.9	4.7	5.0	.7	.7	.4	1.1	.1	.1	6.0	9.0
Stamped and enameled ware and galvanizing.....	5.3	5.2	4.0	4.0	.6	.5	.5	.5	.2	.2	6.3	7.8
Fabricated structural-metal products.....	4.5	4.9	3.0	3.4	.4	.6	1.0	.7	.1	.2	5.8	7.2
Bolts, nuts, washers, and rivets.....	3.2	3.3	2.1	2.5	.4	.4	.5	.2	.2	.2	3.1	4.8
Forgings, iron and steel.....	3.3	3.3	2.5	2.2	.4	.4	.3	.5	.1	.2	4.2	5.3
Electrical machinery.....	4.1	4.6	3.0	3.3	.4	.4	.6	.7	.1	.2	4.3	5.3
Electrical equipment for industrial use.....	2.9	3.0	2.1	2.0	.2	.2	.4	.6	.2	.2	2.9	3.6
Radios, radio equipment, and phonographs.....	5.4	5.9	3.9	4.2	.7	.7	.7	.9	.1	.1	5.9	6.7
Communication equipment except radios.....	3.0	2.9	2.6	2.5	.2	.2	.1	.1	.1	.1	3.7	4.0
Machinery, except electrical.....	3.4	4.1	2.4	2.7	.4	.4	.5	.9	.1	.1	4.4	5.1
Engines and turbines.....	3.1	4.5	2.1	2.4	.4	.6	.5	1.4	.1	.1	3.8	6.5
Agricultural machinery and tractors.....	( <sup>4</sup> )	4.1	( <sup>4</sup> )	2.9	( <sup>4</sup> )	.3	( <sup>4</sup> )	.7	( <sup>4</sup> )	.2	( <sup>4</sup> )	5.1
Machine tools.....	3.4	3.9	1.6	1.9	.3	.2	1.3	1.6	.2	.2	2.2	2.5
Machine-tool accessories.....	3.7	5.3	2.0	2.5	.5	.7	1.1	2.0	.1	.1	3.2	4.3
Metalworking machinery and equipment, not elsewhere classified.....	3.2	4.1	2.3	3.2	.3	.3	.5	.5	.1	.1	3.2	4.5
General industrial machinery, except pumps.....	3.6	4.0	2.4	2.7	.4	.4	.7	.8	.1	.1	3.5	4.6
Pumps and pumping equipment.....	2.8	4.0	2.0	2.6	.5	.8	.2	.5	.1	.1	3.7	5.1
Transportation equipment, except automobiles.....	8.3	9.5	3.7	3.9	.5	.5	4.0	5.0	.1	.1	7.8	9.0
Aircraft.....	7.0	8.3	3.6	4.0	.3	.3	3.0	3.9	.1	.1	6.3	6.9
Aircraft parts, including engines.....	4.1	6.1	2.6	2.5	.4	.4	1.0	3.1	.1	.1	4.8	5.2
Shipbuilding and repairs.....	11.4	13.5	4.4	4.9	.7	.8	6.2	7.7	.1	.7	11.1	13.6
Automobiles.....	3.7	3.9	2.8	2.7	.4	.4	.4	.7	.1	.1	6.2	7.1
Motor vehicles, bodies, and trailers.....	3.7	3.8	2.9	2.6	.4	.3	.3	.8	.1	.1	6.8	7.3
Motor-vehicle parts and accessories.....	3.9	4.1	2.6	2.8	.5	.5	.6	.6	.2	.2	5.0	6.9
Nonferrous metals and their products.....	4.0	4.7	2.8	3.3	.4	.6	.7	.6	.1	.2	4.1	6.1
Primary smelting and refining, except aluminum and magnesium.....	3.2	3.3	1.9	2.3	.6	.6	.5	.2	.2	.2	3.5	4.9
Rolling and drawing of copper and copper alloys.....	3.0	3.2	2.4	2.7	.2	.3	.3	.1	.1	.1	2.5	4.2
Lighting equipment.....	3.9	4.4	3.3	3.4	.4	.5	.2	.3	( <sup>5</sup> )	.2	6.5	10.1
Nonferrous-metal foundries, except aluminum and magnesium.....	4.8	5.2	3.0	3.5	.4	.7	1.2	.8	.2	.2	4.5	5.9

See footnotes at end of table.

TABLE 2.—Monthly labor turn-over rates (per 100 employees) in selected groups and industries,<sup>1</sup> February 1947<sup>2</sup>—Continued

Group and industry	Total separation		Quit		Discharge		Lay-off		Miscellaneous including military		Total accession	
	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.
<i>Manufacturing—Continued</i>												
Lumber and timber basic products.....	5.9	6.7	4.4	5.2	0.4	0.4	1.0	1.0	0.1	0.1	6.8	7.8
Sawmills.....	5.8	6.2	4.1	4.7	.4	.4	1.3	1.0	(2)	.1	7.2	7.0
Planning and plywood mills.....	4.1	4.1	3.4	3.4	.4	.4	.2	.2	.1	.1	4.7	6.1
Furniture and finished lumber products.....	6.5	7.1	4.7	5.4	.9	.8	.8	.8	.1	.1	6.8	9.4
Furniture, including mattresses and bedsprings.....	6.0	6.8	4.4	5.1	.8	.8	.7	.8	.1	.1	6.4	9.1
Stone, clay, and glass products.....	3.6	4.3	2.5	3.2	.4	.4	.6	.5	.1	.2	4.1	4.9
Glass and glass products.....	4.0	3.9	2.3	2.5	.4	.4	1.1	.8	.2	.2	4.4	4.6
Cement.....	3.2	4.1	2.7	3.3	.3	.4	.1	.3	.1	.1	3.5	4.5
Brick, tile, and terra cotta.....	4.3	5.4	3.4	4.2	.4	.7	.4	.4	.1	.1	4.8	6.5
Pottery and related products.....	3.4	4.2	2.4	3.4	.5	.5	.4	.2	.1	.1	4.5	5.3
Textile-mill products.....	4.6	5.3	3.5	4.2	.4	.4	.6	.6	.1	.1	5.3	6.2
Cotton.....	5.6	6.4	4.6	5.3	.4	.4	.5	.6	.1	.1	6.2	7.2
Silk and rayon goods.....	3.8	4.4	2.8	3.5	.3	.4	.6	.4	.1	.1	4.1	5.2
Woolen and worsted, except dyeing and finishing.....	4.0	4.5	2.5	3.1	.4	.3	.9	.9	.2	.2	4.6	4.3
Hosiery, full-fashioned.....	3.2	3.1	2.2	2.6	.3	.1	.6	.4	.1	(2)	2.9	3.8
Hosiery, seamless.....	4.3	4.3	3.5	3.9	.3	.1	.3	.2	.2	.1	5.8	6.3
Knitted underwear.....	4.1	4.7	3.5	4.1	.4	.4	.2	.2	(2)	(2)	6.1	6.5
Dyeing and finishing textiles, including woolen and worsted.....	2.5	3.0	1.8	2.1	.3	.5	.3	.3	.1	.1	3.6	4.3
Apparel and other finished textile products.....	4.8	5.2	4.1	4.3	.3	.3	.4	.6	(2)	(2)	5.9	6.4
Men's and boys' suits, coats, and overcoats.....	3.6	3.9	3.2	3.4	.2	.2	.2	.3	(2)	(2)	4.8	5.0
Men's and boys' furnishings, work clothing, and allied garments.....	5.0	5.0	4.4	4.4	.2	.2	.4	.4	(2)	(2)	5.8	6.5
Leather and leather products.....	3.8	4.5	3.2	3.6	.3	.3	.2	.5	.1	.1	4.8	5.7
Leather.....	2.6	3.0	1.7	2.3	.3	.3	.5	.3	.1	.1	3.7	4.3
Boots and shoes.....	4.0	4.7	3.4	3.8	.3	.2	.2	.6	.1	.1	5.1	6.0
Food and kindred products.....	6.2	6.1	3.7	4.1	.5	.5	1.9	1.4	.1	.1	5.3	6.4
Meat products.....	10.6	8.1	4.6	4.6	1.2	.8	4.6	2.4	.2	.3	6.5	11.2
Grain-mill products.....	4.6	4.1	3.8	2.9	.3	.4	.4	.7	.1	.1	5.2	6.6
Tobacco manufactures.....	5.2	4.7	3.1	3.5	.3	.2	1.6	.8	.2	.2	4.2	5.6
Paper and allied products.....	3.8	4.3	2.8	3.4	.5	.4	.3	.3	.2	.2	3.7	4.6
Paper and pulp.....	2.9	3.6	2.1	2.6	.4	.4	.2	.3	.2	.3	3.0	4.0
Paper boxes.....	6.0	6.6	4.8	5.6	.6	.6	.5	.2	.1	.2	5.5	5.9
Chemicals and allied products.....	2.1	2.6	1.4	1.7	.3	.3	.3	.5	.1	.1	2.6	3.7
Paints, varnishes, and colors.....	2.2	2.4	1.6	1.7	.4	.3	.1	.3	.1	.1	3.5	3.4
Rayon and allied products.....	1.5	1.8	1.1	1.4	.2	.2	.1	.1	.1	.1	1.3	2.6
Industrial chemicals, except explosives.....	2.3	2.5	1.4	1.8	.3	.3	.5	.3	.1	.1	2.8	3.9
Products of petroleum and coal.....	1.0	1.5	.6	.8	.1	.1	.2	.4	.1	.2	1.4	1.3
Petroleum refining.....	.9	1.5	.5	.8	.1	.1	.2	.4	.1	.2	1.3	1.3
Rubber products.....	3.4	3.9	2.5	2.9	.3	.3	.5	.6	.1	.1	3.3	4.6
Rubber tires and inner tubes.....	2.2	2.7	1.7	2.1	.2	.2	.2	.3	.1	.1	2.0	2.4
Rubber footwear and related products.....	5.3	6.6	4.6	4.9	.3	.3	.3	1.3	.1	.1	6.0	7.9
Miscellaneous rubber industries.....	4.9	5.2	3.2	3.7	.5	.6	1.1	.8	.1	.1	4.8	7.3
Miscellaneous industries.....	3.5	3.8	2.3	2.4	.2	.4	.9	.9	.1	.1	3.4	4.3

See footnotes at end of table.

TABLE 2.—Monthly labor turn-over rates (per 100 employees) in selected groups and industries,<sup>1</sup> February 1947 <sup>2</sup>—Continued

Group and industry	Total separation		Quit		Discharge		Lay-off		Miscellaneous including military		Total accession	
	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.
<i>Nonmanufacturing</i>												
Metal mining <sup>3</sup> .....	4.4	5.2	3.7	3.9	0.3	0.4	0.2	0.7	0.2	0.2	5.1	7.1
Iron-ore.....	2.2	2.8	1.5	1.5	.2	.2	.2	.7	.3	.4	3.8	3.7
Copper-ore.....	6.1	7.0	5.5	5.5	.3	.6	.2	.8	.1	.1	6.8	9.8
Lead- and zinc-ore.....	4.3	5.3	3.7	4.2	.3	.3	.2	.6	.1	.2	3.8	7.0
Coal mining: <sup>4</sup>												
Anthracite mining.....	1.4	1.8	1.1	1.2	( <sup>5</sup> )	.1	.2	.4	.1	.1	1.7	2.3
Bituminous-coal mining.....	2.9	3.1	2.4	2.6	.1	.1	.3	.2	.1	.2	2.9	3.9
Public utilities:												
Telephone.....	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
Telegraph.....	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )

<sup>1</sup> Since January 1943 manufacturing firms reporting labor turn-over have been assigned industry codes on the basis of current products. Most plants in the employment and pay-roll sample comprising those which were in operation in 1939, are classified according to their major activity at that time, regardless of any subsequent change in major products.

<sup>2</sup> Preliminary.

<sup>3</sup> Less than 0.05.

<sup>4</sup> Not available.

<sup>5</sup> For the month of January rates for mining industries are based on reports from 458 establishments employing 218,300 persons.

TABLE 3.—Monthly labor turn-over rates for men and women in all manufacturing and selected groups,<sup>1</sup> February 1947 <sup>2</sup>

Industry group	Men's rates (per 100 men)						Women's rates (per 100 women)					
	Total separation		Quit		Accession		Total separation		Quit		Accession	
	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.	Jan.
All manufacturing.....	4.0	4.6	2.7	3.1	4.7	5.7	5.3	6.0	4.1	4.8	5.5	6.7
Durable goods.....	4.3	5.0	3.0	3.3	5.2	6.3	5.0	5.8	3.6	4.3	5.0	6.4
Nondurable goods.....	3.6	3.9	2.4	2.7	3.9	4.6	5.4	6.1	4.2	4.9	5.7	6.9
Iron and steel and their products.....	3.9	4.3	2.9	3.3	4.3	6.0	4.8	5.1	3.5	4.2	4.8	6.4
Electrical machinery.....	3.0	3.5	2.2	2.4	3.6	4.4	5.7	6.6	4.4	5.0	5.6	6.8
Machinery, except electrical.....	3.2	4.0	2.2	2.5	4.3	4.9	3.9	4.8	2.9	3.4	4.4	5.3
Transportation equipment except automobiles.....	8.5	9.5	3.8	3.8	7.4	9.3	6.7	6.4	3.3	3.7	4.2	4.3
Automobiles.....	3.5	3.9	2.6	2.5	5.7	6.0	4.2	4.8	3.0	3.2	6.5	7.7
Nonferrous metals and their products.....	3.9	4.4	2.6	3.1	3.9	5.9	4.6	5.4	3.5	4.2	4.9	6.9
Lumber and timber basic products.....	6.0	6.7	4.5	5.2	7.0	8.1	3.4	6.5	2.6	4.0	2.8	4.2
Furniture and finished lumber products.....	6.4	7.1	4.7	5.4	7.0	9.7	6.6	7.1	4.3	5.5	6.1	7.9
Stone, clay, and glass products.....	3.5	4.1	2.5	3.0	4.2	4.7	3.9	5.0	2.7	4.0	3.6	5.7
Textile-mill products.....	4.3	4.9	3.2	3.8	5.0	6.0	5.0	5.7	4.0	4.7	5.6	6.4
Apparel and other finished textile products.....	3.9	3.8	3.1	2.6	5.1	5.0	4.8	5.3	4.3	4.6	6.1	6.7
Leather and leather products.....	3.0	3.9	2.4	2.9	4.1	4.7	4.6	5.7	4.1	4.9	5.8	7.0
Food and kindred products.....	4.8	4.9	2.7	3.0	4.5	5.3	9.9	10.8	6.3	8.2	7.2	10.2
Tobacco manufactures.....	5.0	3.7	1.9	2.2	2.9	3.9	5.2	5.2	3.8	4.3	4.9	6.5
Paper and allied products.....	3.2	3.7	2.4	2.8	3.3	4.3	5.2	6.4	4.0	5.5	4.9	5.4
Chemicals and allied products.....	1.8	2.3	1.2	1.5	2.5	3.5	3.2	3.9	2.3	2.7	3.1	4.8
Products of petroleum and coal.....	1.0	1.4	.5	.7	1.4	1.2	2.2	3.0	1.8	2.6	1.7	2.1
Rubber products.....	2.8	3.4	2.1	2.5	2.7	3.9	4.8	5.5	3.7	4.2	4.8	6.7
Miscellaneous industries.....	3.1	3.2	1.8	1.8	2.9	3.6	4.5	4.8	3.3	3.4	4.4	5.7

<sup>1</sup> These figures are based on a slightly smaller sample than that for all employees, inasmuch as some firms do not report separate data for women. Rates for January are based on 6,600 reports covering 4,260,000 employees.

<sup>2</sup> Preliminary figures.



# Trends of Earnings and Hours

## Summary of Earnings and Hours Data for February 1947

WEEKLY EARNINGS in manufacturing industries averaged \$47.47 in March 1947, higher than the January 1945 wartime peak, according to preliminary estimates. However, the factory workweek averaged 5 hours shorter in March than at the war peak.

Preliminary averages for March 1947 are:

	Weekly earnings	Weekly hours	Hourly earnings (in cents)
All manufacturing.....	\$47. 72	40. 4	118. 9
Durable goods.....	50. 31	40. 7	123. 6
Nondurable goods.....	44. 80	40. 2	111. 7

The February average workweek in manufacturing was 40.4 hours, a half hour below the level of last December. In the soft goods industries the reduction was even more marked. However, throughout manufacturing the workweek continued to average over 40 hours.

Average weekly earnings rose between January and February, reflecting widespread wage increases and some premium pay for work on Lincoln's Birthday. The largest increases were reported in the soft goods industries. In the woolen and worsted industry, for example, substantial wage rate increases under union agreements increased average weekly earnings to \$47.44 as compared with approximately \$43.00 in December and January. In the rayon and allied products industry, weekly earnings rose to \$47.31, a gain of about \$3.50 over the 2-month period.

Of the 20 major manufacturing groups, 8 had weekly earnings of more than \$50. Apparel and tobacco alone averaged less than \$40 a week. Less than 10 percent of all production workers in manufacturing in February were employed in these two groups.

Annual averages for 1945 and 1946 are presented on page 941 of this issue.

## Earnings and hours in manufacturing and nonmanufacturing industries, February 1947

## MANUFACTURING

Industry group and industry	Average weekly earnings <sup>1</sup>			Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1947	Jan. 1947	Dec. 1946
All manufacturing.....	\$47.28	\$47.09	\$46.96	40.4	40.6	40.9	Cents 117.0	Cents 116.1	Cents 114.8
Durable goods.....	49.72	49.60	49.57	40.4	40.5	40.8	122.9	122.5	122.6
Nondurable goods.....	44.69	44.42	44.24	40.4	40.6	41.1	110.6	109.3	107.7
<i>Durable goods</i>									
Iron and steel and their products.....	50.31	50.64	49.67	40.0	40.1	39.8	125.9	126.2	124.8
Blast furnaces, steel works, and rolling mills.....	50.67	50.89	48.59	38.5	38.2	37.0	131.7	133.2	131.4
Gray-iron and semisteel castings.....	54.04	54.43	53.98	42.1	42.7	42.6	128.3	127.5	126.6
Malleable-iron castings.....	53.03	52.92	51.35	41.1	40.9	40.3	129.1	128.8	127.5
Steel castings.....	49.74	50.68	51.72	38.5	39.0	39.8	128.7	129.8	130.0
Cast-iron pipe and fittings.....	47.90	49.51	46.17	42.6	43.9	41.8	112.4	112.8	110.3
Tin cans and other tinware.....	43.78	44.30	44.79	39.4	40.0	40.8	111.7	111.1	110.4
Wirework.....	49.83	50.05	49.28	41.2	41.3	41.0	121.0	121.3	120.2
Cutlery and edge tools.....	47.34	47.19	47.50	42.5	42.7	43.3	111.5	110.4	109.5
Tools (except edge tools, machine tools, files, and saws).....	49.54	50.39	50.02	42.6	43.3	43.3	116.4	116.4	115.6
Hardware.....	46.94	46.41	46.42	41.6	41.6	41.7	112.8	111.9	111.3
Plumbers' supplies.....	48.51	51.27	49.68	40.3	42.3	41.4	121.0	121.9	120.2
Stoves, oil burners, and heating equipment not elsewhere classified.....	48.85	50.25	49.61	40.0	40.9	41.3	122.7	123.0	120.1
Steam and hot-water heating apparatus and steam fittings.....	50.29	50.12	48.78	40.7	40.7	39.9	123.6	123.1	122.2
Stamped and enameled ware and galvanizing.....	47.05	47.61	48.30	39.7	40.5	41.1	118.3	117.6	117.6
Fabricated structural and ornamental metalwork.....	50.20	49.82	51.10	41.0	40.5	41.7	123.2	122.9	122.5
Metal doors, sash, frames, molding, and trim.....	51.62	52.68	53.54	40.7	42.0	42.8	126.9	125.5	124.9
Bolts, nuts, washers, and rivets.....	50.49	48.83	48.76	41.3	40.2	40.8	122.1	121.1	119.2
Forgings, iron and steel.....	59.30	59.01	58.04	41.5	41.3	40.9	142.8	143.0	141.8
Screw-machine products and wood screws.....	52.02	52.21	52.19	42.4	42.7	42.9	122.6	122.4	121.6
Steel barrels, kegs, and drums.....	52.00	49.44	50.68	41.1	39.9	42.8	126.1	123.4	118.3
Firearms.....	53.73	52.67	53.37	40.0	40.0	40.5	134.0	131.8	131.8
Electrical machinery.....	48.05	48.57	49.13	39.9	40.5	41.1	120.3	120.0	119.5
Electrical equipment.....	49.04	49.79	49.80	39.7	40.3	40.7	123.2	123.0	122.4
Radios and phonographs.....	42.01	42.42	44.38	38.7	39.4	40.9	108.5	107.6	108.6
Communication equipment.....	51.08	51.19	51.58	41.9	42.2	42.7	121.9	121.4	120.8
Machinery, except electrical.....	53.17	53.13	52.87	41.2	41.4	41.4	129.0	128.3	127.7
Machinery and machine-shop products.....	52.79	52.99	52.62	41.4	41.8	41.8	126.6	126.2	125.7
Engines and turbines.....	56.37	56.08	56.88	41.1	41.0	41.5	137.2	136.8	137.1
Tractors.....	51.96	51.96	51.99	39.8	39.5	40.1	130.5	131.5	129.7
Agricultural machinery, excluding tractors.....	51.59	50.19	50.31	40.6	39.9	39.8	128.9	126.9	127.2
Machine tools.....	55.99	56.17	56.66	42.1	42.2	42.8	132.9	132.6	132.2
Machine-tool accessories.....	58.16	58.43	59.71	41.8	42.5	43.2	139.2	137.9	138.1
Textile machinery.....	53.85	53.23	52.12	43.2	43.3	43.5	124.6	122.9	119.9
Typewriters.....	47.95	47.56	47.41	40.9	40.8	40.6	117.1	116.5	116.9
Cash registers, adding and calculating machines.....	60.88	57.16	56.37	42.7	41.1	40.7	143.0	140.0	139.1
Washing machines, wringers and driers, domestic.....	47.05	50.86	48.43	40.0	42.4	41.5	117.6	119.8	116.8
Sewing machines, domestic and industrial.....	54.61	54.02	54.13	41.6	41.5	41.7	131.5	130.7	130.2
Refrigerators and refrigeration equipment.....	49.30	51.59	47.56	38.2	40.4	38.1	127.6	126.7	124.9
Transportation equipment, except automobiles.....	54.02	54.50	55.35	39.6	40.2	40.6	136.3	135.5	136.2
Locomotives.....	56.97	55.64	59.99	40.4	39.8	41.5	141.1	139.7	144.5
Cars, electric- and steam-railroad.....	53.93	52.95	52.24	41.9	41.3	41.5	128.4	128.0	126.0
Aircraft and parts, excluding aircraft engines.....	53.26	52.49	53.46	40.1	39.9	40.4	132.9	131.8	132.5
Aircraft engines.....	54.77	56.28	56.89	40.7	41.4	41.9	134.4	135.8	135.7
Shipbuilding and boatbuilding.....	54.63	56.98	57.21	37.8	39.9	40.0	143.8	142.1	143.0
Motorcycles, bicycles, and parts.....	50.47	50.29	55.23	40.0	40.5	43.2	125.9	124.0	127.8
Automobiles.....	54.33	54.14	54.98	38.8	38.9	39.4	140.1	139.1	139.5

See footnotes at end of table.

## Earnings and hours in manufacturing and nonmanufacturing industries, February 1947—Continued

## MANUFACTURING—Continued

Industry group and industry	Average weekly earnings <sup>1</sup>			Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1947	Jan. 1947	Dec. 1946
<i>Durable goods—Continued</i>									
Nonferrous metals and their products	\$50.27	\$50.05	\$50.40	41.1	41.1	41.7	Cents 122.3	Cents 121.9	Cents 121.0
Smelting and refining, primary, of nonferrous metals	50.05	49.39	49.75	40.6	40.4	41.1	123.5	122.7	121.5
Alloying and rolling and drawing of nonferrous metals except aluminum	54.14	53.73	53.69	41.5	41.4	41.7	130.1	129.4	128.6
Clocks and watches	44.88	43.83	45.39	41.0	39.7	41.4	109.6	110.3	109.6
Jewelry (precious metals) and jewelers' findings	48.05	48.71	51.76	42.1	42.4	44.6	114.0	114.3	115.2
Silverware and plated ware	56.88	57.58	58.27	45.2	45.9	46.8	125.6	125.2	124.9
Lighting equipment	48.71	47.85	46.74	40.4	39.8	39.5	121.4	120.2	118.4
Aluminum manufactures	48.57	49.11	49.20	39.8	40.4	40.6	122.1	121.4	121.1
Lumber and timber basic products	41.15	39.16	38.79	42.1	40.7	41.7	97.9	96.3	93.1
Sawmills and logging camps	40.05	37.52	37.05	41.9	40.1	41.1	95.6	93.6	90.1
Planing and plywood mills	44.50	44.01	44.12	42.5	42.4	43.4	104.7	103.8	101.4
Furniture and finished lumber products	42.86	42.42	42.49	42.0	41.8	42.2	102.0	101.4	100.7
Furniture	44.03	43.35	43.04	42.0	41.5	41.6	104.9	104.6	103.4
Caskets and other morticians' goods	44.74	44.79	44.55	42.0	42.6	43.2	105.5	104.4	102.8
Wood preserving	38.76	37.82	38.66	41.1	40.5	42.0	94.0	93.3	92.1
Stone, clay, and glass products	45.43	45.48	45.89	40.2	40.5	41.0	112.9	112.4	111.9
Glass and glassware	46.88	47.78	47.96	38.7	39.4	39.9	121.2	121.4	120.3
Glass products made from purchased glass	43.47	42.36	42.53	42.3	42.0	42.0	101.2	99.3	99.8
Cement	44.67	43.79	46.12	41.5	40.6	42.4	107.7	107.9	109.0
Brick, tile, and terra cotta	42.35	42.02	42.57	39.8	40.2	40.7	105.6	103.8	104.0
Pottery and related products	42.69	41.97	42.82	37.2	37.7	38.6	114.9	112.1	111.0
Gypsum	51.14	51.49	51.39	45.9	46.2	46.8	111.4	111.4	109.9
Lime	45.00	43.83	46.06	45.7	44.7	46.7	98.0	98.3	98.2
Marble, granite, slate, and other products	44.18	43.95	44.26	41.7	41.9	42.4	105.6	105.0	104.9
Abrasives	49.46	52.70	50.38	40.7	43.2	41.6	121.6	122.0	121.2
Asbestos products	52.55	51.77	50.79	43.7	42.9	42.7	120.4	120.0	118.8
<i>Nondurable goods</i>									
Textile-mill products and other fiber manufactures	40.32	39.29	39.26	40.4	40.5	40.9	99.7	97.0	95.9
Cotton manufactures, except smallwares	37.56	37.06	36.85	40.5	40.6	40.9	92.7	91.4	90.0
Cotton smallwares	40.59	40.48	39.64	40.5	41.0	41.0	99.8	98.0	96.7
Silk and rayon goods	41.48	40.15	39.57	41.6	41.1	41.8	99.7	97.4	94.4
Woolen and worsted manufactures, except dyeing and finishing	47.44	43.10	42.96	41.0	41.3	41.3	115.6	104.5	103.9
Hosiery	38.34	38.20	39.05	38.0	38.1	38.8	100.7	100.4	100.6
Knitted cloth	40.49	39.03	39.26	41.2	40.9	40.2	98.2	95.4	97.2
Knitted outerwear and knitted gloves	36.58	36.49	36.74	38.4	38.4	39.2	95.0	94.4	92.8
Knitted underwear	34.24	33.70	34.26	38.9	38.5	39.3	88.1	86.9	86.8
Dyeing and finishing textiles, including woolen and worsted	45.75	45.67	45.38	42.9	43.3	43.6	106.5	105.5	104.2
Carpets and rugs, wool	46.51	46.51	47.86	40.5	40.7	41.8	114.9	114.5	114.7
Hats, fur-felt	49.03	50.15	53.70	38.4	39.1	41.3	127.1	127.7	129.9
Jute goods, except felts	41.89	40.09	40.57	43.3	43.9	44.4	97.9	92.8	92.9
Cordage and twine	39.51	39.14	39.08	41.0	41.1	41.4	96.4	95.1	94.4
Apparel and other finished textile products	38.83	38.11	37.23	37.0	36.7	37.0	104.9	103.7	100.6
Men's clothing, not elsewhere classified	41.71	41.31	41.78	37.5	37.5	38.1	109.2	109.3	108.9
Shirts, collars, and nightwear	32.32	32.41	33.22	37.2	37.4	38.1	86.9	86.9	86.8
Underwear and neckwear, men's	33.56	33.54	33.68	36.6	36.7	36.9	92.2	91.5	91.3
Work shirts	25.69	25.43	26.72	35.8	34.7	36.9	71.6	73.1	72.4
Women's clothing, not elsewhere classified	48.85	47.58	44.14	36.2	35.6	35.3	131.1	129.5	122.3
Corsets and allied garments	36.36	35.24	35.39	39.0	37.8	38.6	93.0	92.8	91.7
Millinery	48.16	43.38	38.69	34.1	32.1	30.5	116.2	110.9	104.6
Handkerchiefs	30.60	28.95	31.83	36.5	35.3	38.2	84.1	82.1	83.6
Curtains, draperies and bedspreads	28.10	28.14	28.88	33.2	34.0	35.0	85.1	82.5	82.8
Housefurnishings other than curtains, etc.	34.48	34.68	35.85	37.3	38.1	39.5	92.4	91.2	90.5
Textile bags	35.10	35.92	34.78	42.1	42.7	42.2	83.5	84.1	82.5

See footnotes at end of table.



Earnings and hours in manufacturing and nonmanufacturing industries, February 1947—  
Continued

## MANUFACTURING—Continued

Industry group and industry	Average weekly earnings <sup>1</sup>			Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1947	Jan. 1947	Dec. 1946
<i>Nondurable goods—Continued</i>									
Leather and leather products.....	\$40.32	\$40.15	\$39.83	39.4	39.2	39.1	102.3	102.5	101.8
Leather.....	49.65	48.49	47.71	41.6	41.3	41.6	119.3	117.4	115.0
Boot and shoe cut stock and findings.....	37.79	37.84	37.32	38.8	38.8	38.7	98.4	98.0	97.0
Boots and shoes.....	38.88	38.86	38.65	39.2	39.1	38.8	99.2	99.8	99.5
Leather gloves and mittens.....	31.43	32.13	32.16	35.0	34.9	35.5	89.2	91.8	91.0
Trunks and suitcases.....	41.01	39.74	41.70	39.4	38.2	40.1	103.6	104.1	103.4
Food.....	46.37	47.31	46.93	42.7	43.6	44.4	108.7	108.4	105.8
Slaughtering and meat packing.....	52.82	57.20	51.73	44.3	47.5	46.4	119.3	120.6	111.9
Butter.....	42.53	42.24	42.29	45.0	45.6	46.9	94.3	93.6	90.7
Condensed and evaporated milk.....	46.51	46.32	44.50	46.2	46.6	46.5	101.0	99.5	95.7
Ice cream.....	47.84	48.79	48.84	45.9	46.8	46.6	99.8	100.5	100.4
Flour.....	53.64	55.18	54.61	48.8	49.9	50.7	109.7	110.6	108.7
Cereal preparations.....	49.13	48.48	47.81	41.5	40.5	40.9	118.4	119.6	117.0
Baking.....	45.79	46.32	47.55	43.3	43.9	45.3	105.8	105.6	105.1
Sugar refining, cane <sup>1</sup> .....	41.53	38.83	45.62	39.5	38.8	44.6	105.2	100.1	102.4
Sugar, beet.....	48.56	44.34	54.35	42.7	40.5	52.1	113.7	109.5	104.4
Confectionery.....	37.75	37.06	38.19	40.0	39.8	41.4	92.7	91.4	90.2
Beverages, nonalcoholic.....	40.85	41.20	41.37	42.7	42.9	43.2	95.8	95.7	94.9
Malt liquors.....	56.88	57.23	59.74	41.3	41.9	43.7	137.5	136.6	136.7
Canning and preserving.....	36.86	36.55	37.93	36.9	37.6	38.8	100.2	97.5	98.2
Tobacco manufactures.....	35.44	36.74	38.12	37.8	39.2	40.2	93.7	93.8	94.7
Cigarettes.....	40.76	41.36	43.03	39.1	39.7	40.9	104.3	104.1	105.3
Cigars.....	31.98	33.80	34.85	37.2	39.0	39.9	85.6	86.2	87.1
Tobacco (chewing and smoking) and snuff.....	32.03	33.16	34.25	36.0	37.6	39.1	88.9	88.3	87.7
Paper and allied products.....	47.36	46.89	46.87	43.2	43.2	43.7	109.6	108.5	107.1
Paper and pulp.....	50.75	50.12	49.92	44.4	44.2	44.6	114.4	112.9	111.9
Envelopes.....	44.99	44.68	44.51	42.6	42.8	43.0	105.6	104.3	103.5
Paper bags.....	39.93	40.52	39.96	39.9	40.2	40.7	100.1	100.9	98.3
Paper boxes.....	43.58	43.58	43.61	42.0	42.3	42.3	103.9	103.0	101.2
Printing, publishing, and allied industries.....	56.88	56.50	57.03	40.2	41.0	41.5	141.3	137.9	137.4
Newspapers and periodicals.....	63.34	62.28	62.95	38.8	39.1	39.3	160.4	157.2	156.9
Printing, book and job.....	53.88	54.05	54.98	40.8	42.0	42.7	133.5	129.8	129.5
Lithographing.....	56.62	57.58	57.55	42.7	43.5	44.1	132.8	132.3	130.6
Chemicals and allied products.....	48.12	47.37	47.14	41.4	41.4	41.6	116.3	114.3	113.3
Paints, varnishes, and colors.....	50.34	49.69	49.17	42.3	42.1	42.2	119.2	118.1	116.6
Drugs, medicines, and insecticides.....	43.15	41.88	42.01	41.1	40.4	40.6	105.2	103.7	103.5
Soap.....	53.46	53.08	52.93	43.1	42.8	43.3	124.0	124.1	122.2
Rayon and allied products.....	47.31	44.14	43.76	39.3	39.5	39.2	120.5	111.7	111.7
Chemicals, not elsewhere classified.....	55.01	54.77	54.15	41.0	41.3	41.2	134.1	132.7	131.6
Explosives and safety fuses.....	50.00	53.08	51.68	39.6	41.0	40.7	126.7	129.5	127.0
Ammunition, small-arms.....	48.55	48.14	47.38	41.4	41.5	41.2	117.2	116.1	115.0
Cottonseed oil.....	35.77	35.91	36.49	51.7	52.2	53.6	69.2	68.8	68.1
Fertilizers.....	33.44	33.44	34.64	41.4	41.3	42.1	80.8	81.0	82.4
Products of petroleum and coal.....	55.39	55.20	54.55	40.1	40.2	40.0	138.1	137.2	136.2
Petroleum refining.....	57.99	58.02	57.80	39.9	40.0	40.4	144.9	144.6	143.4
Coke and byproducts.....	48.77	47.66	43.56	39.5	39.4	36.7	123.0	121.4	119.1
Roofing materials.....	52.59	51.99	50.92	44.0	44.6	44.1	119.6	116.7	115.6
Rubber products.....	54.27	54.17	54.63	40.6	40.7	41.1	133.6	133.3	133.1
Rubber tires and inner tubes.....	59.90	60.00	60.46	39.4	39.6	39.8	151.8	151.3	151.3
Rubber boots and shoes.....	45.83	46.06	45.93	42.0	41.9	42.0	109.2	109.9	109.3
Rubber goods, other.....	48.76	48.12	48.68	42.0	41.9	42.6	115.7	114.9	114.3
Miscellaneous industries.....	46.05	45.99	45.85	41.0	41.1	41.6	112.3	112.0	110.3
Instruments (professional and scientific) and fire-control equipment.....	51.50	52.00	52.20	39.7	40.1	40.7	127.9	127.3	126.9
Pianos, organs, and parts.....	53.20	53.07	47.65	42.3	42.4	40.5	125.2	125.7	118.0

See footnotes at end of table.

*Earnings and hours in manufacturing and nonmanufacturing industries, February 1947—*  
Continued

## NONMANUFACTURING

Industry group and industry	Average weekly earnings <sup>1</sup>			Average weekly hours <sup>1</sup>			Average hourly earnings <sup>1</sup>		
	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1947	Jan. 1947	Dec. 1946	Feb. 1947	Jan. 1947	Dec. 1946
<b>Mining:</b>							<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Anthracite.....	\$57.42	\$62.40	\$65.82	35.1	39.1	40.9	163.7	159.4	161.5
Bituminous coal.....	65.30	69.58	69.56	43.6	46.7	46.7	149.1	149.0	149.1
Metal.....	52.03	50.64	52.04	42.0	41.2	42.2	123.8	122.9	123.2
Iron.....	48.71	46.18	47.89	40.5	39.1	39.7	120.3	118.1	120.7
Copper.....	54.94	54.38	55.46	44.3	44.0	45.1	124.1	123.7	122.9
Lead and zinc.....	53.15	52.40	53.69	41.3	40.9	42.3	128.6	128.2	126.8
Quarrying and nonmetallic.....	45.34	45.55	48.07	42.8	43.1	45.8	106.2	105.8	105.2
Crude petroleum production.....	55.99	56.02	53.15	40.6	41.3	39.5	139.4	135.5	134.6
<b>Public utilities:</b>									
Telephone.....	43.31	43.37	42.98	38.0	38.4	38.0	114.1	113.2	113.2
Telegraph <sup>2</sup> .....	47.15	46.83	45.94	44.0	43.8	43.2	107.1	106.9	106.2
Electric light and power.....	55.37	54.11	54.58	41.6	41.9	41.4	135.2	131.3	133.7
Street railways and busses.....	56.80	56.22	55.26	48.1	47.7	47.9	116.8	116.5	114.2
<b>Trade:</b>									
Wholesale.....	50.93	50.05	51.20	40.8	41.5	42.3	123.2	119.7	120.2
Retail.....	35.27	34.40	33.73	40.1	39.9	40.3	95.7	95.1	91.9
Food.....	42.12	41.50	41.19	40.1	40.0	40.8	102.1	101.1	98.1
General merchandise.....	29.92	30.13	28.29	36.1	36.1	36.4	80.5	80.1	76.5
Apparel.....	35.85	35.89	35.52	37.2	36.9	36.9	95.2	96.4	96.8
Furniture and housefurnishings.....	45.85	45.86	49.39	41.9	42.1	43.8	111.6	112.2	115.2
Automotive.....	49.69	49.01	50.61	45.8	45.6	47.2	109.4	109.5	109.3
Lumber and building materials.....	44.73	44.30	44.78	42.9	43.0	43.5	105.6	104.4	103.7
Hotels (year-round) <sup>4</sup> .....	28.91	28.62	28.40	43.9	43.8	43.7	65.2	64.8	65.1
Power laundries.....	31.78	32.46	32.13	42.5	43.3	43.5	74.8	74.5	73.9
Cleaning and dyeing.....	34.93	36.29	36.50	41.1	42.3	42.8	86.1	87.4	86.7
Security brokerage.....	63.87	62.56	63.78	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Insurance.....	50.43	52.46	52.25	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )

<sup>1</sup> These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked or received pay during any part of one pay period ending nearest the 15th of February 1947. The figures shown below relate to firms reporting man-hour data in all cases except security brokerage and insurance; weekly earnings are based on a slightly larger sample (see footnote 1, tables 1 and 4).

*Manufacturing.*—31,800 establishments, 7,347,000 production workers.

*Mining.*—2,500 establishments, 317,000 production workers.

*Public utilities.*—6,700 establishments, 749,000 employees.

*Wholesale trade.*—8,600 establishments, 241,000 employees.

*Retail trade.*—26,700 establishments, 679,000 employees.

*Hotels (year-round).*—900 establishments, 83,000 employees.

*Power laundries and cleaning and dyeing.*—1,300 establishments, 58,000 production workers.

*Security brokerage and insurance.*—3,100 establishments, 142,000 employees. For manufacturing, mining, power laundries, and cleaning and dyeing industries, the data relate to production workers only. For the remaining industries, the data relate to all employees except high-paid executives and officials. Data for the current and immediately preceding months are subject to revision.

<sup>2</sup> Revisions have been made as follows in the data for earlier months: *Sugar refining, cane.*—November 1946 to \$40.07, 40.8 hours, and 98.2 cents.

<sup>3</sup> Excludes messengers, and approximately 6,000 employees of general and divisional headquarters, and of cable companies.

<sup>4</sup> Cash payments only; additional value of board, room, and tips, not included.

<sup>5</sup> Not available.

## Annual Averages of Earnings and Hours, 1945 and 1946

ANNUAL AVERAGES of earnings and hours for the years 1945 and 1946 are presented below for manufacturing and nonmanufacturing industries.

*Averages of earnings and hours in manufacturing and nonmanufacturing industries, 1945 and 1946*

## MANUFACTURING

Industry group and industry	Average weekly earnings <sup>1</sup>		Average weekly hours <sup>1</sup>		Average hourly earnings <sup>1</sup>	
	1946	1945	1946	1945	1946	1945
All manufacturing.....	\$43.74	\$44.39	40.4	43.4	108.4	102.3
Durable goods.....	46.49	49.05	40.2	44.1	115.6	111.1
Nondurable goods.....	41.02	38.29	40.5	42.3	101.2	90.4
<i>Durable goods</i>						
Iron and steel and their products.....	47.36	49.10	39.6	44.6	119.5	110.0
Blast furnaces, steel works, and rolling mills.....	48.25	52.44	37.4	44.1	129.1	118.8
Gray-iron and semisteel castings.....	50.70	50.86	42.5	46.2	119.4	110.1
Malleable-iron castings.....	49.51	49.83	40.9	45.4	121.1	109.9
Steel castings.....	48.45	49.98	38.8	43.9	124.8	113.8
Cast-iron pipe and fittings.....	42.49	41.57	41.4	45.7	102.6	90.9
Tin cans and other tinware.....	42.86	40.71	40.8	44.5	105.5	91.5
Wirework.....	47.77	48.82	41.4	45.9	115.5	106.4
Cutlery and edge tools.....	45.06	43.50	43.4	45.0	103.6	96.7
Tools (except edge tools, machine tools, files, and saws).....	47.00	45.37	43.3	45.8	108.6	99.1
Hardware.....	43.94	44.93	41.8	45.7	105.0	98.4
Plumbers' supplies.....	45.71	46.65	40.9	44.5	111.7	104.8
Stoves, oil burners, and heating equipment not elsewhere classified.....	46.13	46.23	40.8	44.6	113.2	103.7
Steam and hot-water heating apparatus and steam fittings.....	47.76	47.73	40.5	45.5	117.8	104.8
Stamped and enameled ware and galvanizing.....	44.66	45.47	40.3	44.1	110.0	103.2
Fabricated structural and ornamental metalwork.....	47.40	50.37	40.3	45.5	117.5	110.7
Metal doors, sash, frames, molding, and trim.....	49.00	50.24	41.5	45.6	118.0	110.2
Bolts, nuts, washers, and rivets.....	44.89	48.51	39.7	45.9	112.7	105.7
Forgings, iron and steel.....	52.77	56.79	39.9	45.0	132.4	126.2
Screw-machine products and wood screws.....	49.02	49.65	42.4	46.7	115.6	106.2
Steel barrels, kegs, and drums.....	45.52	42.10	40.9	42.1	111.2	100.0
Firearms.....	50.83	56.39	41.6	45.1	122.3	125.1
Electrical machinery.....	45.64	46.43	40.3	44.1	113.1	105.3
Electrical equipment.....	46.73	48.73	40.1	44.7	116.6	109.1
Radios and phonographs.....	41.09	41.10	39.6	44.1	103.8	93.1
Communication equipment.....	48.51	46.10	41.8	44.1	116.1	104.2
Machinery, except electrical.....	50.12	52.24	41.2	45.8	121.8	114.0
Machinery and machine-shop products.....	49.89	51.91	41.5	46.1	119.9	112.4
Engines and turbines.....	52.47	54.32	40.1	44.5	130.9	122.4
Tractors.....	49.86	51.60	39.3	44.6	126.8	115.8
Agricultural machinery, excluding tractors.....	47.41	51.33	39.9	45.4	118.9	113.0
Machine tools.....	53.80	56.57	42.5	47.8	126.5	118.3
Machine-tool accessories.....	56.23	56.91	42.3	46.6	132.8	122.4
Textile machinery.....	48.83	48.93	43.2	47.6	112.9	102.7
Typewriters.....	46.35	47.28	42.1	46.6	110.0	101.4
Cash registers, adding and calculating machines.....	55.27	56.16	41.4	45.9	134.2	123.0
Washing machines, wringers and driers, domestic.....	44.48	46.25	41.0	44.9	108.6	103.1
Sewing machines, domestic and industrial.....	51.00	55.29	42.6	49.3	120.4	112.9
Refrigerators and refrigeration equipment.....	45.90	49.10	38.3	44.0	119.6	111.5
Transportation equipment, except automobiles.....	52.34	56.07	39.5	43.6	132.5	128.3
Locomotives.....	58.06	61.24	40.4	45.6	143.5	134.3
Cars, electric- and steam-railroad.....	48.65	50.36	40.9	43.6	118.9	115.5
Aircraft and parts, excluding aircraft engines.....	52.24	54.37	40.6	45.7	128.8	119.1
Aircraft engines.....	54.78	57.93	41.2	44.5	133.0	130.1
Shipbuilding and boatbuilding.....	52.34	61.72	38.0	45.1	137.8	137.0
Motorcycles, bicycles, and parts.....	48.81	50.71	41.2	46.8	118.5	108.3
Automobiles.....	50.22	51.99	37.6	41.3	133.3	125.6

See footnotes at end of table.



## Averages of earnings and hours in manufacturing and nonmanufacturing industries, 1945 and 1946—Continued

## MANUFACTURING—Continued

Industry group and industry	Average weekly earnings <sup>1</sup>		Average weekly hours <sup>1</sup>		Average hourly earnings <sup>1</sup>	
	1946	1945	1946	1945	1946	1945
<i>Durable goods—Continued</i>						
Nonferrous metals and their products.....	\$47.84	\$48.28	41.5	45.2	Cents 115.5	Cents 106.8
Smelting and refining, primary, of nonferrous metals.....	47.43	48.98	40.6	45.7	116.8	107.3
Alloying and rolling and drawing of nonferrous metals except aluminum.....	51.73	53.50	41.7	47.0	124.1	113.8
Clocks and watches.....	42.15	42.41	41.2	44.3	102.3	95.8
Jewelry (precious metals) and jewelers' findings.....	47.78	44.53	43.5	44.4	109.3	99.6
Silverware and plated ware.....	53.52	48.48	45.8	46.5	117.0	104.3
Lighting equipment.....	45.09	45.00	39.6	42.9	113.8	104.9
Aluminum manufactures.....	46.86	47.86	40.2	44.9	116.5	106.5
Lumber and timber basic products.....	36.53	33.80	40.9	42.0	89.4	80.5
Sawmills and logging camps.....	35.21	32.61	40.4	41.4	87.2	78.7
Planing and plywood mills.....	40.85	37.74	42.3	43.9	96.3	85.8
Furniture and finished lumber products.....	39.22	36.68	41.9	43.3	93.6	84.8
Furniture.....	39.97	37.42	41.6	43.1	96.2	87.0
Caskets and other morticians' goods.....	41.37	39.40	42.7	44.2	96.7	89.3
Wood preserving.....	35.82	34.57	41.1	43.6	87.1	79.3
Stone, clay and glass products.....	42.32	39.98	40.7	43.1	104.1	92.9
Glass and glassware.....	43.59	40.27	39.4	41.3	110.9	97.6
Glass products made from purchased glass.....	38.48	35.84	41.4	42.8	91.0	83.0
Cement.....	44.24	43.67	42.3	46.0	104.6	95.0
Brick, tile, and terra cotta.....	39.26	34.86	40.3	41.7	97.0	82.8
Pottery and related products.....	39.85	36.68	39.1	40.9	102.7	90.8
Gypsum.....	48.21	45.13	46.6	48.1	103.5	93.8
Lime.....	42.79	39.31	46.1	47.8	92.3	81.6
Marble, granite, slate, and other products.....	42.55	40.41	42.2	43.1	100.7	93.8
Abrasives.....	46.02	47.71	39.8	46.3	115.5	103.1
Asbestos products.....	48.41	47.42	42.9	47.0	112.9	100.9
<i>Nondurable goods</i>						
Textile-mill products and other fiber manufactures.....	35.89	31.08	40.2	41.1	89.3	75.7
Cotton manufactures, except smallwares.....	33.10	28.20	39.9	41.3	83.0	68.3
Cotton smallwares.....	37.28	34.99	41.1	42.9	90.7	81.7
Silk and rayon goods.....	36.09	30.82	41.2	41.4	87.5	74.4
Woolen and worsted manufactures, except dyeing and finishing.....	41.57	36.27	41.1	41.6	101.2	87.2
Hosiery.....	35.14	30.01	38.1	37.5	92.2	80.0
Knitted cloth.....	38.84	34.24	42.4	43.4	91.5	78.7
Knitted outerwear and knitted gloves.....	34.99	31.38	39.2	39.0	88.3	79.6
Knitted underwear.....	31.06	27.58	38.5	39.6	80.4	69.3
Dyeing and finishing textiles, including woolen and worsted.....	40.98	36.02	42.6	44.3	96.2	81.2
Carpets and rugs, wool.....	42.75	39.68	40.8	42.2	105.0	94.3
Bats, fur-felt.....	51.23	45.55	41.0	40.7	124.8	111.7
Jute goods, except felts.....	37.60	35.27	43.6	44.6	87.2	79.2
Cordage and twine.....	35.50	33.82	41.0	44.4	86.6	76.0
Apparel and other finished textile products.....	35.62	31.67	36.9	36.9	96.7	85.8
Men's clothing, not elsewhere classified.....	37.96	33.32	37.5	37.6	100.7	88.4
Shirts, collars, and nightwear.....	29.38	25.55	37.1	36.9	79.0	69.4
Underwear and neckwear, men's.....	31.31	27.42	36.9	36.6	83.4	74.9
Work shirts.....	23.15	20.72	35.4	35.9	65.3	57.6
Women's clothing, not elsewhere classified.....	44.94	40.12	35.9	35.8	122.0	109.3
Corsets and allied garments.....	33.65	30.64	38.7	39.7	87.1	77.4
Millinery.....	41.52	39.41	32.1	32.2	106.4	100.0
Handkerchiefs.....	28.08	24.52	36.3	36.7	77.5	66.9
Curtains, draperies, and bedspreads.....	28.08	27.02	36.1	36.3	78.0	73.7
Housefurnishings, other than curtains, etc.....	33.97	31.58	38.4	39.8	88.0	79.3
Textile bags.....	31.68	29.92	39.7	41.1	79.8	72.8
Leather and leather products.....	37.27	35.05	39.0	41.1	95.5	85.3
Leather.....	44.59	44.45	41.0	45.3	108.8	98.2
Boot and shoe cut stock and findings.....	36.30	34.45	39.7	41.6	91.7	83.5
Boots and shoes.....	36.16	33.43	38.6	40.4	93.0	82.3
Leather gloves and mittens.....	31.95	30.08	36.5	36.9	88.0	81.7
Trunks and suitcases.....	38.71	35.28	39.6	41.0	97.3	85.2

See footnotes at end of table.

## Averages of earnings and hours in manufacturing and nonmanufacturing industries, 1945 and 1946—Continued

## MANUFACTURING—Continued

Industry group and industry	Average weekly earnings <sup>1</sup>		Average weekly hours <sup>1</sup>		Average hourly earnings <sup>1</sup>	
	1946	1945	1946	1945	1946	1945
<b>Nondurable goods—Continued</b>						
Food.....	\$42.67	\$39.51	43.3	44.9	Cents 98.6	Cents 88.1
Slaughtering and meat packing.....	45.71	44.57	42.6	47.5	107.3	94.1
Butter.....	39.69	35.86	46.5	47.1	85.1	75.3
Condensed and evaporated milk.....	42.51	39.03	47.8	50.4	89.0	77.4
Ice cream.....	44.80	40.64	47.2	47.0	91.9	83.1
Flour.....	48.20	44.08	48.4	49.5	99.6	89.2
Cereal preparations.....	45.08	46.12	41.6	46.4	108.3	99.5
Baking.....	43.35	39.50	44.7	45.6	97.2	86.7
Sugar refining, cane.....	38.49	38.02	39.6	44.3	97.2	85.8
Sugar, beet.....	44.81	38.18	43.4	40.8	103.1	93.6
Confectionery.....	34.54	31.35	39.9	41.0	84.9	76.5
Beverages, nonalcoholic.....	38.67	35.66	43.1	43.4	88.9	82.1
Malt liquors.....	54.31	53.12	42.3	45.6	128.3	116.3
Canning and preserving.....	37.92	32.07	41.0	39.9	92.9	80.8
Tobacco manufactures.....	34.25	31.79	39.5	41.7	86.8	76.4
Cigarettes.....	38.36	34.42	40.5	42.4	94.7	81.2
Cigars.....	31.80	29.95	39.0	41.2	81.3	72.5
Tobacco (chewing and smoking) and snuff.....	30.23	28.91	37.6	40.6	80.3	71.3
Paper and allied products.....	43.47	40.50	43.4	45.9	100.1	88.3
Paper and pulp.....	46.54	43.85	44.3	48.0	104.9	91.3
Envelopes.....	41.32	37.82	42.9	44.5	96.2	85.1
Paper bags.....	37.11	35.75	40.9	43.4	91.1	82.8
Paper boxes.....	40.26	36.39	42.6	43.5	94.7	83.8
Printing, publishing, and allied industries.....	52.43	47.22	40.9	41.4	128.3	114.0
Newspapers and periodicals.....	57.41	51.21	38.6	38.8	146.0	130.0
Printing, book and job.....	50.48	45.55	42.0	42.8	120.7	107.1
Lithographing.....	53.24	49.69	43.1	44.6	123.5	111.5
Chemicals and allied products.....	44.34	43.99	41.2	44.5	107.7	98.9
Paints, varnishes, and colors.....	46.79	46.83	42.5	46.7	110.2	100.5
Drugs, medicines, and insecticides.....	38.85	36.18	40.2	42.4	96.6	85.5
Soap.....	47.65	48.30	41.7	47.5	114.4	101.8
Rayon and allied products.....	41.32	39.79	39.1	42.1	105.8	94.4
Chemicals, not elsewhere classified.....	51.55	52.64	41.3	46.0	124.8	114.5
Explosives and safety fuses.....	48.53	46.84	39.9	44.1	121.6	106.1
Ammunition, small-arms.....	43.59	44.57	39.8	44.9	109.5	99.2
Cottonseed oil.....	31.58	29.02	50.0	51.3	63.1	56.6
Fertilizers.....	32.92	32.13	42.1	45.1	78.2	71.3
Products of petroleum and coal.....	53.79	55.86	40.4	46.2	133.3	121.0
Petroleum refining.....	56.81	58.39	40.1	45.9	141.5	127.6
Coke and byproducts.....	45.49	48.93	39.1	46.2	116.1	106.0
Roofing materials.....	48.30	46.67	44.6	48.1	108.3	97.0
Rubber products.....	50.32	49.54	40.2	44.0	125.4	112.5
Rubber tires and inner tubes.....	55.30	56.32	38.6	44.0	142.6	127.9
Rubber boots and shoes.....	43.35	41.82	41.6	44.6	104.3	93.7
Rubber goods, other.....	45.34	42.81	42.1	44.2	107.7	97.0
Miscellaneous industries.....	43.18	43.11	41.4	44.0	104.4	98.0
Instruments (professional and scientific), and fire control equipment.....	49.28	54.10	40.4	46.9	121.1	115.5
Pianos, organs, and parts.....	45.41	44.58	41.6	44.3	109.5	101.0

## NONMANUFACTURING

Mining:					Cents	Cents
Anthracite.....	\$57.15	\$48.98	38.3	39.2	149.4	125.2
Bituminous coal.....	58.03	52.25	41.6	42.3	140.1	124.0
Metal.....	46.86	45.86	40.5	44.0	115.6	104.2
Iron.....	43.88	44.44	37.7	43.7	116.5	101.7
Copper.....	49.49	46.64	42.8	44.7	115.7	104.4
Lead and zinc.....	48.92	47.90	41.7	44.3	117.3	108.2
Quarrying and nonmetallic.....	45.06	41.26	45.4	46.6	99.3	88.6
Crude petroleum production.....	52.98	54.24	40.5	45.2	130.8	119.7

See footnotes at end of table.

*Averages of earnings and hours in manufacturing and nonmanufacturing industries, 1945 and 1946—Continued*

NONMANUFACTURING—Continued

Industry group and industry	Average weekly earnings <sup>1</sup>		Average weekly hours <sup>1</sup>		Average hourly earnings <sup>1</sup>	
	1946	1945	1946	1945	1946	1945
Public utilities:					<i>Cents</i>	<i>Cents</i>
Telephone.....	\$44.04	( <sup>2</sup> )	39.4	( <sup>2</sup> )	112.4	( <sup>2</sup> )
Telegraph <sup>3</sup> .....	40.87	\$37.98	44.2	45.5	92.4	83.4
Electric light and power.....	52.04	50.05	41.6	43.5	125.6	114.1
Street railways and busses.....	53.08	50.50	48.5	51.4	107.1	97.4
Trade:						
Wholesale.....	48.06	44.04	41.8	42.7	114.4	102.9
Retail.....	32.55	28.31	40.5	40.3	87.8	77.3
Food.....	38.94	33.40	41.1	40.9	91.0	77.3
General merchandise.....	27.26	23.38	36.6	36.5	73.0	63.5
Apparel.....	33.93	29.93	37.1	37.0	92.3	82.2
Furniture and housefurnishings.....	44.72	39.80	43.6	43.8	104.9	92.0
Automotive.....	47.65	43.67	46.3	46.2	104.6	95.6
Lumber and building materials.....	42.39	38.60	43.0	43.1	99.9	90.9
Hotels (year-round) <sup>4</sup> .....	26.95	24.53	43.9	44.2	61.2	55.0
Power laundries.....	30.30	28.61	43.2	43.4	70.0	66.0
Cleaning and dyeing.....	35.36	32.94	43.0	43.3	83.1	77.0
Security brokerage.....	66.26	64.48	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
Insurance.....	50.94	47.13	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )

<sup>1</sup> These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during any part of one pay period ending nearest the 15th of the month. As not all reporting firms furnish man-hour data, average hours and average hourly earnings for individual industries are based on a slightly smaller sample than are weekly earnings.

<sup>2</sup> New series established April 1945; annual average data for 1945 are not available.

<sup>3</sup> Excludes messengers and approximately 6,000 employees of general and divisional headquarters, and of cable companies.

<sup>4</sup> Cash payments only; additional value of board, room, and tips, not included.

<sup>5</sup> Not available.

## Trend of Factory Earnings, 1939 to February 1947

AVERAGE EARNINGS of factory workers, summarized in the accompanying table for selected months from January 1939 to February 1947,<sup>1</sup> are on a gross basis (i. e., before deductions for social security, income taxes, bond purchases, etc.).

Weekly earnings in all manufacturing averaged \$47.28 in February 1947—103.9 percent above the average in January 1939, 77.5 percent above January 1941, and 21.6 percent above October 1942. Weekly earnings for February 1947 increased 16.1 percent above February 1946. However, the average weekly earnings are still below the war-time peak of \$47.50 in January 1945, as the result of shorter working hours and shifts of workers from the high paid war industries to the lower paid consumer goods industries.

Gross hourly earnings in all manufacturing averaged 117.0 cents in February 1947—85.1 percent above the average in January 1939,

<sup>1</sup> Compare Trends in Factory Wages, 1939-43, in Monthly Labor Review, November 1943 (p. 869), especially table 4 (p. 879). For detailed data regarding weekly earnings, see preceding table.



71.3 percent above January 1941, and 31.0 percent above October 1942.

Estimated average hourly earnings exclusive of overtime, as shown in columns 7 to 9, are weighted by man-hours of employment in the major divisions of manufacturing for January 1941. Overtime is defined as work in excess of 40 hours per week and paid for at time and one-half. The method of estimating average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on major holidays or the effect of extra pay for work on supplementary shifts. For all manufacturing, the average hourly earnings, exclusive of overtime, in February 1947 were 113.1 cents per hour—76.4 percent above January 1939, 70.3 percent above January 1941, and 40.1 percent above October 1942.

*Earnings of factory workers in selected months, 1939 to February 1947*

Month and year	Average weekly earnings			Average hourly earnings			Estimated average hourly earnings exclusive of overtime <sup>1</sup> weighted by January 1941 employment		
	All manufacturing (1)	Durable goods (2)	Non-durable goods (3)	All manufacturing (4)	Durable goods (5)	Non-durable goods (6)	All manufacturing (7)	Durable goods (8)	Non-durable goods (9)
1939: January.....	\$23.19	\$25.33	\$21.57	\$0.632	\$0.696	\$0.583	\$0.641	\$0.702	\$0.575
1940: January.....	24.56	27.39	22.01	.655	.717	.598	.652	.708	.589
1941: January.....	26.64	30.48	22.75	.683	.749	.610	.664	.722	.601
1942: January.....	33.40	38.98	26.97	.801	.890	.688	.751	.826	.668
July.....	36.43	42.51	28.94	.856	.949	.725	.783	.863	.696
October.....	38.89	45.31	30.66	.893	.990	.751	.807	.888	.718
1943: January.....	40.62	46.68	32.10	.919	1.017	.768	.819	.905	.726
April.....	42.48	48.67	33.58	.944	1.040	.790	.833	.916	.742
July.....	42.76	48.76	34.01	.963	1.060	.806	.850	.939	.753
October.....	44.86	51.26	35.18	.988	1.086	.824	.863	.950	.768
December.....	44.68	50.50	35.61	.995	1.093	.832	.873	.962	.775
1944: January.....	45.29	51.21	36.03	1.002	1.099	.838	.877	.965	.780
April.....	45.55	51.67	36.16	1.013	1.110	.850	.889	.976	.794
July.....	45.43	51.07	37.05	1.018	1.116	.862	.901	.993	.802
October.....	46.94	53.18	37.97	1.031	1.129	.878	.908	.991	.817
December.....	47.44	53.68	38.39	1.040	1.140	.883	.912	.997	.820
1945: January.....	47.50	53.54	38.66	1.046	1.144	.891	.920	1.005	.827
April.....	47.12	52.90	38.80	1.044	1.138	.899	.925	1.007	.836
July.....	45.45	50.66	38.59	1.033	1.127	.902	.933	1.017	.842
October.....	40.97	44.23	37.76	.985	1.063	.909	.942	1.014	.863
December.....	41.21	44.08	38.52	.994	1.066	.927	.957	1.028	.880
1946: January.....	41.15	43.67	38.75	1.004	1.070	.941	.970	1.037	.895
April.....	42.88	45.71	40.13	1.058	1.131	.988	1.027	1.102	.946
July.....	43.38	46.24	40.46	1.093	1.177	1.009	1.067	1.155	.970
October.....	45.73	48.90	42.45	1.130	1.202	1.056	1.095	1.169	1.014
December.....	46.96	49.57	44.24	1.148	1.216	1.077	1.106	1.178	1.027
1947: January <sup>2</sup> .....	47.09	49.60	44.42	1.161	1.225	1.093	1.120	1.188	1.046
February <sup>2</sup> .....	47.28	49.72	44.69	1.170	1.229	1.106	1.131	1.194	1.061

<sup>1</sup> Overtime is defined as work in excess of 40 hours per week and paid for at time and one half. The method of estimating average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on major holidays. Estimates for the months of January, July, September, and November, therefore, may not be precisely comparable with those for the other months, in which important holidays are seldom included in the pay periods for which manufacturing establishments report to the Bureau. This characteristic of the data does not appear to invalidate the comparability of the figures for January 1941 with those for the preceding and following months.

<sup>2</sup> Preliminary.

# Labor Chronology

## Chronology of Labor Events, January-March 1947

### January

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- Jan. 5. The Director of the United States Conciliation Service appointed 26 special conciliators to reinforce the Government's staff of full-time conciliators in the peaceful settlement of industrial disputes. (Source: U. S. Department of Labor release S47-735; for discussion, see MLR, Feb. 1947, p. 265.)
- Jan. 6. The President, in addressing Congress, requested enactment of legislation to prevent abuses in the labor-management field and to extend social security. He urged extension of the machinery in the United States Department of Labor for settlement of industrial disputes. He requested Congress to provide for establishment of a temporary commission to study the causes of labor-management conflict, and to make its first report, including recommendations for legislation, by March 15, 1947. (Source: White House release, Jan. 6, 1947; for discussion, see MLR, Feb. 1947, p. 255.)
- On January 8, the President transmitted his first economic report to Congress, as required under the Employment Act of 1946 (see Chron. item for Feb. 20, 1946, MLR, May 1946; for discussion see MLR, Apr. 1946, p. 586). This report proposed short-term and long-term programs for the maintenance of the Nation's prosperity. (Source: The Economic Report of the President, transmitted to the Congress Jan. 8, 1947; for discussion, see MLR, Feb. 1947, p. 234.)
- Jan. 7. The Federal Housing Administration announced a series of changes in its procedures and policies with the aim of encouraging larger production of rental dwellings for veterans. Methods to be used under the program for obtaining additional rental units are (1) conversion of existing structures, which will produce the quickest action at lowest cost and probably at lowest rentals; (2) construction of more 2-, 3-, and 4-family units, which is considered to be the next speediest method and one which will broaden opportunities for builders and investors; and (3) production of more large-scale rental structures. (Source: National Housing Agency News No. 730, FHA, NH 72,706.)
- Jan. 8. The Administrator of the Office of Temporary Controls announced that rent control over daily rates charged for transient rooms in hotels and motor courts would be lifted on February 15, 1947. (Source: OPA-6956.)

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Jan 8. (con.).

On February 6, the OPA announced that provisions under which owners of rental property may apply for increases in rent ceilings were to be liberalized. One change (effective on February 15) was to make it easier to get rent increases to cover "financial hardship" in cases in which rent ceilings were lower than generally prevailing rentals for comparable housing in the area on the maximum rent date. The other, which was to be accomplished through instructions to OPA rent offices, was to relax the procedure for granting rent increases when "peculiar circumstances" have caused rents to be lower than those charged for comparable dwellings on the maximum rent date. (Source: OPA-6963.)

Jan. 11. The President, by Executive Order No. 9820, provided for segregation of all of the powers, functions, and duties of the Housing Expediter under the Veterans' Emergency Housing Act of 1946 (see Chron. item for Apr. 21, 1946, MLR, Aug. 1946), which had been merged with the powers, functions, and duties of the National Housing Administrator of the NHA. These were to be exercised and performed by the Housing Expediter as an independent officer of the Federal Government. (Source: Federal Register, Vol. 12, p. 205.)

On March 22, the President, by Executive Order No. 9836, provided that all functions, duties, and powers with respect to the Veterans' Emergency Housing Program which had been administered in the Office of Temporary Controls (see Chron. item for Feb. 3, this issue) were to be vested in the Housing Expediter, effective on April 1, 1947. (Source: Federal Register, Vol. 12, p. 1939.)

Jan. 14. The Supreme Court heard arguments in the injunction and contempt cases growing out of the strike of the United Mine Workers of America (AFL) affecting Government seized bituminous-coal mines (see Chron. item for Oct. 21, 1946, MLR, Feb. 1947). The chief questions raised were (1) whether the Norris-La Guardia Anti-Injunction Act applies to the Government, thereby making improper the antistrike injunction issued against the UMWA and its president, John L. Lewis; and (2) whether the union and Mr. Lewis were obligated to obey the restraining order regardless of the application of the act. (Source: Labor Relations Reporter, 19 LRR, p. 137.)

On March 6, the Supreme Court, in the case of *United States v. United Mine Workers of America*, upheld the contempt conviction of John L. Lewis, president, and the UMWA; ruled that the Norris-La Guardia Act is inapplicable to the Government when it is acting as an employer; and upheld the \$10,000 fine levied against Mr. Lewis. The fine against the union was reduced to \$700,000, with the provision that the remaining \$2,800,000 must be paid "unless the defendant union, within 5 days after the issuance of the mandate herein, shows that it has fully complied with the temporary restraining order issued November 18, 1946, and the preliminary injunction issued December 4, 1946." (Source: Supreme Court decision, Mar. 6, 1947.)



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Jan. 14 (Con.). On March 17, the Supreme Court ordered issuance on March 20 of its mandate or official order allowing Mr. Lewis and the UMWA until March 25 to comply with the Court's decision of March 6. On March 19, the president of the UMWA notified the Secretary of the Interior of his unconditional withdrawal of his November 15, 1946, notice terminating the Krug-Lewis coal agreement. At the same time the members of the UMWA were instructed that the agreement would continue in full force and effect. (Sources: Labor Relations Reporter, 19 LRR, pp. 307 and 308, and daily press.)

Jan. 17. The Secretary of Labor announced the appointment of William L. Connolly of Rhode Island as Director of the Division of Labor Standards. Mr Connolly succeeded Verne A. Zimmer who died on December 25, 1946. (Source: U. S. Department of Labor release S47-827.)

On March 7, the President accepted the resignation of L. Metcalfe Walling as Administrator of the Wage and Hour and Public Contracts Divisions of the United States Department of Labor. (Source: White House release, Mar. 7, 1947.)

On March 28, the Senate confirmed the President's nomination of William R. McComb as Administrator of the Wage and Hour and Public Contracts Divisions. (Source: Congressional Record, Mar. 28, 1947, p. 2915.)

Jan. 22. The arbitration board, in the pay and rules dispute between Transcontinental and Western Air, Inc., and the Air Line Pilots Association (AFL) (see Chron. item for Nov. 14, 1946, MLR, Feb. 1947), unanimously awarded pay increases. Pilots flying trans-world airline overseas routes were granted pay rates ranging from \$925 to \$1,125 a month or an increase of \$100 monthly. Co-pilots were granted rates of \$290 to \$520 a month or an increase of \$60 monthly. (Source: Chester Wright's Labor Letter, Feb. 1, 1947, and daily press.)

Jan. 31. The president of the AFL proposed to the CIO a merger of the two organizations, in an official reply to a letter (Dec. 5, 1946) from the president of the CIO, calling for united action on legislative matters. The AFL president said that a committee of five was ready to represent the Federation in any joint conferences on the proposal. (Source: AFL Weekly News Service, Feb. 4, 1947.)

On February 18, the president of the CIO wrote to the president of the AFL, stating that a committee of five had been named to meet with the committee designated by the AFL for the purpose of taking effective measures to prevent the enactment of anti-labor legislation. It was suggested that the railway labor organizations should be asked to appoint a committee to participate in the meetings. (Source: CIO News, Feb. 24, 1947.)

On February 25, the president of the AFL wrote to the president of the CIO, stating that he interpreted the latter's recent letter as a rejection of the proffer by the AFL of a meeting to discuss organic unity of the two organizations. (Source: AFL Weekly News Service Supplement, Feb. 28, 1947.)

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Jan. 31 (Con.). On March 13, the president of the CIO again wrote to the president of the AFL, restating the desire for a meeting to discuss "immediate protective measures" in addition to surveying possibilities of "the achievement of organic unity." (Source: CIO News, Mar. 17, 1947.)

### February

Feb. 1. The President commended the agreement signed by the Building and Construction Trades Department of the AFL, representing 19 international unions and about 2 million workers, and the Associated General Contractors of America, for industrial peace in the construction industry. The plan provided for a national joint body in the building and construction industry for the settlement of any dispute or disagreement which may arise and which is voluntarily submitted to that body by mutual agreement of the parties involved in the dispute. (Source: White House release, Feb. 1, 1947; for discussion, see MLR, Feb. 1947, p. 263.)

Feb. 1. The publisher of the Philadelphia Record and the Camden Morning Post and Evening Courier announced the sale of all three newspapers. Reasons cited by the publisher as influencing this action were "excessive demands" of the American Newspaper Guild (CIO). On November 7, 1946, the members of the ANG had gone on strike for a \$100-a-week minimum rate of pay for experienced reporters. This demand was later reduced to \$85. Union officials issued a statement that the strike would continue despite suspension of publication. (Source: BLS records.)

Feb. 3. The Temporary Controls Administrator, pursuant to the authority of Executive Order No. 9809 (see Chron. item for Dec. 12, 1946, MLR, Feb. 1947), ordered the liquidation of the Office of War Mobilization and Reconversion. The liquidation is to be completed not later than June 30, 1947, and all residual operating and administrative functions are to be assumed by the Office of Temporary Controls Administrator immediately thereafter. (Source: Federal Register, Vol. 12, p. 885.)

On March 22, the President approved the Urgent Deficiency Appropriation Act of 1947, which provides that the Office of Temporary Controls and two of its constituent agencies—the Office of Price Administration and the Civilian Production Administration—(see Chron. item for Dec. 12, 1946, MLR, Feb. 1947) shall be entirely liquidated not later than June 30, 1947. (Source: White House Release Mar. 22, 1947.)

Feb. 3. The International Labor Organization Committee on Petroleum Production and Refining met in Los Angeles. (Source: AFL Weekly News Service, supplement, Feb. 7, 1947.)

On March 17, the ILO Committee on Social Policy in Dependent Territories met in London. (Source: International Labor Office, Information Service, release PR 277, Mar. 15, 1947.)

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Feb. 4. The Administrator of the Retraining and Reemployment Administration, in a year-end report to the Advisory Council of RRA, recommended that Federal agencies continue active cooperation with all State and county veterans' service offices and with community advisory centers (see Chron. item for Feb. 13, 1946, MLR, May 1946). He said: "The work of the State and local agencies with returning war veterans has already saved the Federal Government and the respective communities millions of dollars. \* \* \* More important \* \* \* is their contribution toward the speedy reintegration of former servicemen and women into normal community life." As the provisions of the law establishing RRA terminate on June 30, 1947, the report stated that community, State, and Federal agencies served by RRA should not plan on the assumption of receiving assistance from this agency thereafter. (Source: U. S. Department of Labor releases, Feb. 4, 1947.)

Feb. 5. Murray W. Latimer, director of the Guaranteed Wage Study, submitted his final report to the Advisory Board of the OWMR. Broad suggestions were made for revision of existing unemployment insurance, wage and hour, and corporate tax laws and regulations, in order to encourage wage plans. Estimates were made of the cost to employers of hypothetical guaranties. (Source: Labor Relations Reporter, Feb. 10, 1947, WH, p. 1070.)

On February 25, the Advisory Board of the OWMR transmitted the report to the President, stating: "The report represents a major contribution to the sum of knowledge in this field and deserves serious consideration by government, labor, management, and the public." The Board shared the committee's conclusions that (1) guaranteed wage plans should not be the subject of legislation but of free collective bargaining, (2) employers and employees are mutually concerned, (3) existing protective legislation should be reviewed, as it also affects the achievement of stability, (4) the guaranteed wage is a significant but not an all-sufficient tool, and (5) continued study of a guaranteed wage is desirable to advance the frontiers of knowledge in the area of elimination of industrial employment fluctuations, thus aiding in the achievement of Nation-wide economic stability. The Board recommended that responsibility for leadership in integrating Government efforts be assigned to the Council of Economic Advisers (see Chron. item for Feb. 20, 1946, MLR, May, 1946; for discussion see MLR, Apr. 1946, p. 586) with the understanding that they will consult with and call upon other agencies concerned, as provided in the basic law establishing the Council. (Source: White House release, Feb. 25, 1947.)

On March 7, the President requested the Council of Economic Advisers to "study the economic implications of the guaranteed wage, particularly as a device for helping to stabilize employment, production, and purchasing power. This study should consider existing legislation in the fields of social insurance, minimum wages, fiscal and tax policies, and other laws that affect the



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inauguration or operation of guaranteed wage plans." The Secretary of Commerce and the Secretary of Labor were also requested to assume certain responsibilities. (Source: White House release, Mar. 8, 1947.)

Feb. 7. The United States Department of Labor announced that, after expiration of the National Wage Stabilization Board, trade-unions subject to the War Labor Disputes Act—which would expire on June 30, 1947 (see Chron. item for June 25, 1943, and summary of act, p. 305, MLR, Aug. 1943; also Chron. item for Dec. 31, 1946, MLR, Feb. 1947)—would be required to file only two 30-day strike notices, one with the Secretary of Labor and the other with the National Labor Relations Board. The previous requirement was that three 30-day strike notices should be filed, but under Executive Order No. 9809 the functions of the NWSB were transferred to the Secretary of Labor. (Source: U. S. Department of Labor release S47-945.)

On February 20, the President released a letter from the NWSB, which was to finish its work on the following day and pass out of existence, in accordance with Executive Orders Nos. 9801 and 9809 (see Chron. items for Nov. 9 and Dec. 12, 1946, MLR, Feb. 1947). The NWSB stated that in the course of operation, 22,113 cases had been processed, covering wage adjustments for over 6½ million employees. (Source: White House release, Feb. 20, 1947.)

On February 21, the Director of the United States Conciliation Service announced that effective at once all arbitrators appointed by the Department of Labor would be chosen from the Conciliation Service's National Panel of Arbitrators. All 150 men on this panel have been cleared in regard to impartiality and competence by representatives of labor and management. (Source: U. S. Department of Labor release S47-1017.)

On the same date, the Acting Chairman of the NWSB also noted that many unions and employers in collective bargaining agreements had designated the NWSB or its predecessor, the NWLB, as the agency authorized to appoint arbitrators, and that Executive Order No. 9672 of December 31, 1945, gave the NWSB the authority to appoint arbitrators, if necessary, under the NWLB orders or collective bargaining agreements (see Chron. item for Jan. 2, 1946, MLR, May 1946). Since the Secretary of Labor was to exercise the appointive power vested in the NWLB and the NWSB, the designation of arbitrators was to be made by the Secretary of Labor, in future. (Source: NWSB-116.)

Feb. 7. The arbitration board in the dispute between the Duquesne Light and Power Co. of Pittsburgh and the Independent Association of Employees (see Chron. item for Oct. 31, 1946, MLR, Feb. 1947) awarded a sliding scale wage increase and denied the union's other principal demands. (Source: Labor Relations Reporter 6 LA, p. 470.)

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- Feb. 9. The executive committee of the Committee of Maritime Unity, composed of six CIO unions and one independent union (see Chron. item for June 14, 1946, MLR, Aug. 1946), voted to recommend to member unions that the organization be dissolved. (Source: BLS records and daily press.)
- Feb. 13. The Joint Labor Research Advisory Committee to the Bureau of Labor Statistics held its first meeting. "Through the Committee, the Bureau will have a medium for the exchange of ideas and comparing notes on matters of mutual interest based on frank and free discussion," the Commissioner of Labor Statistics stated. Meetings are to be held bimonthly; a small standing committee is to be available for day-to-day consultation by the Bureau. Membership in the Committee consists of seven representatives of the AFL; eight representatives of the CIO; and four representatives of the Railway Labor Executives' Association, one of whom also represents an AFL union. (Source: U. S. Department of Labor release 47-985.)
- Feb. 15. The president of the American Federation of Musicians (AFL) was quoted as having announced that the trust fund accumulated from "royalties" on records produced by union members (which was set up in 1944 to build up an "employment fund" for idle musicians) was sufficiently large to make it possible to launch a program of free music by live musicians. Free concerts are to be held, it is stated, in "public parks, auditoriums, public schools, homes for the aged, veterans' hospitals, and other places where music would be conducive to promoting more employment, better public relations, and musical culture." Up to December 31, 1946, receipts amounted to \$1,756,435, the president stated, and this money was being allocated to musicians' locals to carry out the program of free music. (Source: Labor, Feb. 15, 1947.)
- Feb. 17. The Supreme Court, in the case of *Walling v. Portland Terminal Co.*, decided that trainees for brakeman and fireman positions with railroad companies, who perform actual duties and functions of positions sought in the course of their training under supervision of regular employees, are not "employees" within the meaning of the Fair Labor Standards Act, since in all such cases, the railroads do not receive any immediate advantage from any work done by the trainees. (Source: U. S. Law Week, 15 LW, pp. 4247 and 4256.)
- Feb. 24. The Research and Policy Committee of the Committee for Economic Development issued a report devoted to the attainment of more effective collective bargaining. The Committee recommended that a permanent national management-labor council should be created; that no strike should be called or strike vote taken until bargaining has had a chance to function and the mediation service has had an opportunity (10 days) to settle the dispute in question. Another important provision suggested is that differences arising from the interpretation of agreements should be arbitrated. The mediation service would be set up in the United States Department of Labor but should be independent in its

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operations and policies. (Source: Committee for Economic Development: News release, Feb. 24, 1947; and Collective bargaining—How to make it more effective.)

- Feb. 27. The NLRB, in a case involving the Reed Roller Bit Co. and the United Steel Workers of America (CIO), held: "We think that the time has come when stability of industrial relations can be better served without unreasonably restricting employees in their right to change representatives, by refusing to interfere with bargaining relations secured by collective agreements of 2 years' duration. Such contracts, even in the presence of a contrary custom in the industry, should ordinarily preclude a determination of representatives until shortly before their terminal dates." (Source: U. S. Law Week, 15 LW, p. 2482.)

### March

- Mar. 9. The 439-day strike by members of local 180, United Automobile Workers (CIO), against the J. I. Case Co., Racine, Wis., and involving some 3,400 workers ended with the acceptance of wage-rate increases averaging 25 cents an hour. Settlements had previously been reached in company plants in three other cities. No provisions were made for the closed shop and check-off.

On December 26, 1945, the strike had started in connection with issues of wages and union security. (Source: Business Week, Mar. 15, 1947, p. 100; for discussion, see MLR, Apr. 1947, p. 700.)

On March 29, 1946, the company was invited to meet with the Secretary of Agriculture and the Secretary of Labor in order to discuss the importance of resumption of operations. The company declined.

On July 30, an invitation was again extended which was declined on August 1. (Source: U. S. Department of Labor release of July 30, 1946, and daily press.)

On October 14, the company offered the workers a new contract covering wages and working conditions.

On October 16, the union rejected this offer.

On December 19, the NLRB ordered the company to bargain with the union. In the course of its decision, the NLRB ruled void a controversial letter written in 1937, which the company contended barred the local from arguing for a closed shop.

On February 25, 1947, the Wisconsin Supreme Court upheld the circuit court in taking the same position on the 1937 letter as the NLRB had taken. (Source: Daily press; for discussion see MLR, Mar. 1947, p. 490.)

- Mar. 10. The Supreme Court, in the case of *Packard Motor Car Co. v. National Labor Relations Board*, decided that foremen are entitled as a class to rights of self-organization, collective bargaining, and other concerted activities which are assured to employees generally by the laws; that the statutory definition of "employer" does not



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**Mar. 10 (Con.).** mean that foremen are outside of the employee class and in that of employers. The Court held that the NLRB determination that foremen of various grades at plants of the motor company constitute a unit appropriate for collective bargaining is supported by substantial evidence. Only passing reference was made to a problem raised in the Jones & Laughlin Steel Corp. case (see Chron. item for Mar. 7, 1946, MLR, May 1946); namely, that the union of foremen was not affiliated with any rank and file organization. (Source: Labor Relations Reporter: BNA Advance Bulletin, Mar. 10, 1947.)

On January 9, the NLRB unanimously had decided not to render any further decisions in foremen's cases until the Supreme Court reached a decision.

On March 13, after the Court's decision, instructions were issued to the NLRB staff to process all foremen's cases which were pending at the following procedural levels: (1) those in which hearings had started before the January 9 moratorium; (2) those in which hearings had been completed and were awaiting issuance of intermediate reports; and (3) those which were awaiting determination by the Board. (Source: NLRB, R-6213.)

**Mar. 17.** United States officials in charge of labor sections in Japan and in the American occupied zones of Germany, Austria, and Korea conferred with officials of the United States Department of Labor and the War Department.

On March 18, the conferees met with the Department of Labor's Joint Trade-Union Advisory Committee on International Affairs (see Chron. item for Nov. 24, 1946, MLR, Feb. 1947). (Source: U. S. Department of Labor release S47-1114.)

**Mar. 21.** The President, by Executive Order No. 9835, prescribed procedures for the administration of an employees' loyalty program in the Executive branch of the Federal Government. "There shall be a loyalty investigation of every person entering the civilian employment \* \* \*. The head of each department and agency in the executive branch of the Government shall be personally responsible for an effective program to assure that disloyal civilian officers or employees are not retained \* \* \*." (Source: Federal Register, Vol. 12, p. 1935.)

**Mar. 23.** Local 248 of the United Automobile Workers (CIO) voted to end the 328-day strike against the Allis-Chalmers Manufacturing Co., at West Allis, Wis., and to return to work the following day without a contract. Settlement had previously been reached in six other plants of the company (for discussion, see MLR, April 1947, p. 700).

On April 30, 1946, the strike began. The union demanded an hourly wage increase of 25 cents, a union shop, and changes in grievance procedure.

On September 9, the union and its officers were enjoined by the Milwaukee Circuit Court from unlawful mass picketing.

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Mar. 23 (Con.). On December 28, the Wisconsin Employment Relations Board announced it had ordered a secret election, within 30 days, to determine the workers' bargaining agent.

On January 8, 1947, the Federal judge denied the petition of local 248 for an injunction to block a collective bargaining election.

On January 16, the Federal Circuit Court of Appeals ruled against local 248 in their effort to stave off the election.

On February 6, the management refused an invitation from local 248 for resumption of bargaining negotiations. (Source: Daily press.)

Mar. 26. An explosion killed 111 mine workers at No. 5 mine of the Centralia Coal Co., at Centralia, Ill.

On March 29, the president of the UMWA addressed a letter to the officers and members of the UMWA recommending that a memorial period should be observed (which, he stated, was in accordance with the contract provision), to begin at midnight on March 31 and to end at midnight on April 6. (Source: Text of John L. Lewis' letter dated Mar. 29, 1947.)

Mar. 31. The draft provisions of the Selective Service and Training Act of 1940 expired; these provisions had been extended on May 9, 1945, May 14, 1946, and June 29, 1946. This law was the first which introduced military conscription of manpower in peacetime. (Source: White House release, Mar. 3, 1947, and daily press; for discussion, see MLR, Oct. 1940, p. 834.)

Mar. 31. The President "with reluctance" approved the Sugar Control Extension Act of 1947 whereby sugar rationing was extended until October 31. This termination date, the President stated, "appears to be too early." Without this legislation, rationing would have lapsed at midnight under the Second War Powers Act. The law also extended certain price controls until October 31; such controls would otherwise have lapsed on June 30 under the Price Control Act. A Sugar Rationing Administration was established in the United States Department of Agriculture to enforce the extension act. (Source: Public Law 30, 80th Cong., 1st sess.; see Chron. item for Feb. 3, this issue.)

# Recent Publications of Labor Interest

May 1947

## Coal Industry

*Pennsylvania anthracite.* By J. A. Corgan and Marian I. Cooke. Washington, U. S. Department of the Interior, Bureau of Mines, 1946. 42 pp., charts. (Preprint from Minerals Yearbook, 1945.)

Includes data on production and consumption, number of days plants operated, mining methods and equipment, employment, prices, and other subjects, for 1945 and earlier years.

*Bituminous coal and lignite in 1945.* By W. H. Young, R. L. Anderson, L. H. Isaac. Washington, U. S. Department of the Interior, Bureau of Mines, 1946. 97 pp., maps, charts; processed. (M. M. S. No. 1468.)

Final figures for the calendar year 1945, showing production, consumption, mining methods, number of days mines were active, number of men employed (by length of working shifts), and other information, by State.

*Report of the commissioner appointed to inquire into and report upon the coal-mining industry, [Australia].* Canberra, Commonwealth Government Printer, 1946. 2 vols., 505 pp., diagrams, plans. £1 5s. for set.

The major subjects which the board of inquiry was charged with investigating, in addition to industry conditions (coal reserves, requirements, mining methods, etc.), were largely those connected with employment in relation to production, such as avoidable absenteeism, causes of work stoppages, possible defects in the existing system of conciliation and arbitration of labor disputes, health and safety of employees, compensation for industrial accidents and diseases, housing, and pension plans. These and related labor matters are treated in detail and are the subjects of recommendations.

*Report of the Royal Commission on Coal, [Canada], 1946.* Ottawa, Edmond Cloutier, 1947. 663 pp., maps, charts. \$2.

Findings and recommendations of the Commission, popularly known as the Carroll Commission, from its chairman. In addition to the industry data (coal reserves, production and distribution, markets, mining methods, etc.), the volume contains information on governmental regulations and activities with respect to the industry; the miners, conditions under which they live and work, their unions, and their earnings; employer-employee relations; and other labor subjects.

*The future of the coal miner.* London, Ministry of Fuel and Power, 1946. 39 pp., charts, illus. 9d. net.

Based largely on the Reid Committee's report of 1945, which recommended important technical reforms in Britain's coal industry, this pamphlet explains the critical situation of the industry and outlines the Committee's recommendations. Ventilation and lighting of the mines and protection and training of the workers are among the subjects treated.

*Report on an inquiry into conditions of labor in the coal mining industry in India.* By S. R. Deshpande. Delhi, Manager of Publications, 1946. 197 pp., bibliography, map. 4s.

All phases of labor and welfare conditions are covered. Information is also given on trade-unions and on labor legislation applicable to coal mines.

EDITOR'S NOTE.—Correspondence regarding the publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Where data on prices were readily available, they have been shown with the title entries.



*Information on coal mining in Spain.* By J. H. East, Jr. Washington, U. S. Department of the Interior, Bureau of Mines, 1947. 27 pp., diagrams; processed. (Information circular No. 7396.)

Subjects dealt with include mining methods and equipment, production (1945 and earlier years), ventilation of mines, accidents to workers (1944), employment (1935 and 1944), and wages in the Asturias district (March 1945).

### Cooperative Movement

*A short history of the Cooperative League of the U. S. A.* By James P. Warbasse. New York, Cooperative League, 1946. 40 pp., chart, illus. 25 cents.

Brief account of the formation of the League and of its activities, written by one of its founders and its president for the first 25 years of its existence.

*Activities of credit unions in 1945.* Washington, U. S. Bureau of Labor Statistics, 1947. 13 pp. (Bull. No. 894; reprinted from Monthly Labor Review, December 1946, with additional data.) 5 cents, Superintendent of Documents, Washington.

*Thirteenth annual report of the Farm Credit Administration, 1945-46.* Washington, 1947. 120 pp., maps. 25 cents, Superintendent of Documents, Washington.

A considerable part of this report deals with the work of the FCA in the field of cooperatives—production credit associations, banks for cooperatives, and farmers' cooperative marketing, service, and purchasing associations. One table gives the number of farmers' cooperatives (and estimated membership) of various types, including those of Indians, mutual fire-insurance companies, telephone associations, and burial associations.

*Annual report of the Tennessee Valley Authority, for the fiscal year ended June 30, 1946.* Washington, 1946. 245 pp., map, illus. 40 cents, Superintendent of Documents, Washington.

The report includes brief discussion of operations of various types of farmer cooperatives in the Tennessee Valley and also the text of TVA's contracts with electricity cooperatives.

*North Dakota cooperative statistics.* Fifth annual statistical report, for the past fiscal year, of Division of Cooperatives, North Dakota Department of Agriculture and Labor. Bismarck, 1946. 15 pp. (Bull. No. 63.)

Statistics cover 273 cooperative grain elevators, 110 petroleum associations, 30 creameries, 16 store associations, 30 mutual insurance companies, 66 credit unions, and a number (not specified) of miscellaneous associations. A total business of \$209,913,252, net earnings of \$6,827,509, and patronage refunds of \$5,805,385 were reported.

*Yearbook of agricultural cooperation, 1945-46.* Edited by Horace Plunkett Foundation, London. Cambridge, W. Heffer & Sons, Ltd., 1946. 295 pp., bibliography.

Although dealing mainly with agricultural cooperatives in various countries, considerable information on nonfarm cooperation is included.

*The people's yearbook, 1947.* Manchester, England, Cooperative Wholesale Society, [1947?] 176 pp., illus.

In addition to general articles on cooperation in "Britain and the empire," the yearbook contains detailed statistics on consumers' cooperative associations in Great Britain through 1945 or 1946 and summary data on cooperatives in various other countries.

*Cooperation in the Soviet Union.* By N. Barou. London, Victor Gollancz, Ltd., 1946. 123 pp. 6s. net.

The author discusses the status of the various branches of the cooperative movement—agricultural, consumers', handicraft, banking, etc.—under the changes in Government policy toward them. He explains these changes from the Government viewpoint and attempts to demonstrate the necessity for the official policies and the democratic character of the cooperatives. The account goes only through 1944 and does not, therefore, include a decree reported in Pravda, November 11, 1946, permitting formation of cooperatives in cities again (urban cooperatives were dissolved by decree in 1935 and their property transferred to the State), and otherwise encouraging the cooperative movement.

*Kooperativ verksamhet i Sverige, år 1944.* Stockholm, Socialstyrelsen, 1946. 52 pp., chart.

Data on local consumers' distributive cooperatives, productive associations (both those owned by consumers' cooperatives and by workers' productive associations), and the Kooperativa Förbundet (the national cooperative union and wholesale).

### Education and Training

*The concept of vocational education in the thinking of the general educator, 1845 to 1945.* By Arthur Beverly Mays. Urbana, University of Illinois, Bureau of Educational Research, [1946]. 107 pp. (Bull. No. 62.) 75 cents.

*Vocational education of college grade.* Washington, Federal Security Agency, Office of Education, 1946. 126 pp. (Bull., 1946, No. 18.) 30 cents, Superintendent of Documents, Washington.

Surveys the need for programs of vocational education of college grade, factors in their adequate development, and nature and extent of existing programs.

*Job hunting made practical—the Boston plan.* Washington, U. S. Department of Labor, Retraining and Reemployment Administration, 1947. 13 pp., illus.; processed. Free.

Describes the techniques used in Boston to teach job seekers how to hunt for work. Courses are given and forums are held.

*The State labor reserves schools, [Soviet Union].* By Mary Modell Naimark. (In American Review on the Soviet Union, New York, March 1947, pp. 73-78. \$1.)

Account of the Soviet system of training young people for industry, with some comment on plans for the future. A table shows the number of workers trained from 1940 (when the labor reserves schools were established) to 1945.

### Employment and Unemployment

*Economic policy and full employment.* By Alvin H. Hansen. New York, McGraw-Hill Book Co., Inc., 1947. 340 pp. \$4.

In presenting his views on basic policies needed for full employment, the author places high priority on the need for adequate public investment. Employment programs of five leading democracies are summarized. A critique of current proposals in the United States is also included. Some of the problems of managing a full-employment economy conclude the discussion.

*Employment, rehabilitation, and veteran adjustment—a bibliography, 1940-45.* Compiled by Paul S. Burnham. Chicago, Public Administration Service, 1946. 27 pp. (Publication No. 97.) \$1.

*Maximum employment in a free society.* New York, International Chamber of Commerce, United States Associates, 1947. 24 pp. 10 cents.

Resolution and report adopted by the council of the International Chamber of Commerce at its 65th meeting, Paris, December 3 and 4, 1946.

*Mobility of workers in employment covered by old-age and survivors insurance.* By Franklin M. Aaronson and Ruth A. Keller. Washington, Federal Security Agency, Social Security Administration, Bureau of Research and Statistics, 1946. 80 pp., charts; processed. (Bureau report No. 14.)

Based on wage records of the Bureau of Old Age and Survivors Insurance, Social Security Administration, for 1938 to 1943.

*Special inquiry into labor market conditions in the Little Egypt, [Illinois], area.* Chicago, Illinois State Employment Service, Division of Placement and Unemployment Compensation, 1946. 44 pp., charts; mimeographed.

Study of an area where employment has been declining, due largely to exhaustion of some of the coal fields and the increasing use of mining machinery.

*Labor requirements for construction materials: Part I, Portland cement.* Washington, U. S. Bureau of Labor Statistics, 1947. 21 pp., charts, illus. (Bull. No. 888—I.) 15 cents, Superintendent of Documents, Washington.

*International implications of full employment in Great Britain.* By Allan G. B. Fisher. London, Royal Institute of International Affairs, 1946. 202 pp. 15s. net.

Explores the possible inconsistencies involved in seeking simultaneously to assure full employment in Great Britain and participation in a free, multilateral international trading system. Indicates conditions which must be fulfilled if such a dual policy is to succeed. Special attention is paid to effects on the British economy of violent fluctuations in the economy of the United States.

### Housing

*Trends in housing during the war and postwar periods.* Washington, U. S. Bureau of Labor Statistics, 1947. 13 pp. (Serial No. R. 1875; reprinted from Monthly Labor Review, January 1947.) Free.

*Public housing in Chicago benefits future citizens.* By J. S. Fuerst. (In The Child, Federal Security Agency, Social Security Administration, Children's Bureau, Washington, February 1947, pp. 134-136, 143, charts, illus. 10 cents.)

Shows how the public program has been directed so as to encourage the housing of children. In one large project, the more than 1,450 families in residence had over 4,000 children. Provision is made for their health, education, and social development.

*The emergency in housing: New York State acts to meet the crisis.* By Herman T. Stichman. New York, [Executive Department], Division of Housing, 1946. 42 pp., maps, illus.

Description of the comprehensive housing program undertaken in New York State to house people adequately, with special emphasis on the veteran housing problem. Housing on college and university campuses is included.

*Fourteenth annual report to the 131 mutual savings banks in New York State, owners of Savings Banks Trust Co., 1946.* New York, Savings Banks Trust Co., [1947]. 38 pp., charts, illus.

In addition to financial data, the report contains material on various housing projects in the financing of which mutual savings banks are participating through the Housing Agency of the Savings Banks Trust Co.; one of these is to be carried on under the State urban redevelopment law.

*Negro housing needs in Pittsburgh and Allegheny County.* By Joseph H. Bunzel. Pittsburgh, Pittsburgh Housing Association, 1946. 32 pp., map; processed.

Survey of the housing situation for Negroes in 1940 and the changes and estimated needs in 1945.

*Housing expenditure.* Fifth report from Select Committee on Estimates, House of Commons, together with minutes of evidence, session 1945-46. London, H. M. Stationery Office, 1946. 249 pp. 6d. net.

Reviews estimates for housing expenditures submitted to the British House of Commons by the government departments concerned, and reports on a survey of progress made with permanent and temporary housing. Summarizes the housing functions of the Ministries of Health, Works, and Supply. Analyzes causes of current labor shortage in the building trades and in manufacture of builders' supplies, and emphasizes the need of an adequate labor force as fundamental to any solution of housing problems. In general, the committee recommends the streamlining of housing administration to eliminate overlapping of functions between departments and to keep an even balance between the demands of the permanent and temporary housing programs. Statistics of labor force in building supply industries are included in an appendix.

### Industrial Accidents and Workmen's Compensation

*Annual safety equipment issue, National Safety News, National Safety Council, Chicago, March 1947.* 226 pp., illus.

*The discovery and analysis of multiple accident causes.* By Roger J. Desnoyers. (In Industrial Safety Survey, International Labor Office, Montreal, July-September 1946, pp. 81-87. 50 cents. Distributed in United States by Washington Branch of I. L. O.)



*Protecting men at work.* Toronto, Industrial Accident Prevention Associations, [1946?]. 22 pp., illus. (Pamphlet No. 70.)

*Safety and supervision.* By John M. Amiss and Lloyd R. Walker. Detroit, Chrysler Corporation, 1946. 125 pp., illus.

Manual for supervisors, discussing safety fundamentals, accident causes, physical safeguards, good "housekeeping," safety training for workers and other factors in accident prevention.

*Thirtieth annual report of the U. S. Employees' Compensation Commission, July 1, 1945, to June 30, 1946.* Washington, 1947. 43 pp. 15 cents, Superintendent of Documents, Washington.

Report on operations under the various acts, administered by the Commission, which provide compensation for injury or death to persons engaged in employments under Federal jurisdiction.

*La prévention des risques professionnels.* By P. Lafarge. (In *Revue Française du Travail*, Ministère du Travail et de la Sécurité Sociale, Paris, December 1946, pp. 765-779.)

Detailed analysis of French legislation on safety and hygiene in industry for three periods—before 1893, from 1893 to 1931, and since 1931. The study is of particular significance, because beginning with January 1947 regional technical committees of the newly created social-security funds are to have a part in enforcement of legislation for prevention of industrial accidents and occupational diseases.

*Le rôle des comités de sécurité du bâtiment dans la prévention des accidents.* By M. Branes. (In *Revue Française du Travail*, Ministère du Travail et de la Sécurité Sociale, Paris, February 1947, pp. 149-164.)

Describes the organization and work of safety committees (national, regional, and industrial) which have been formed or may be formed pursuant to legislation of August 4, 1941, May 13, 1943, and May 24, 1946, for the prevention of accidents in building and public works in France.

*Twenty-fourth annual report of the Safety in Mines Research Board, [Great Britain], 1945.* London, Ministry of Fuel and Power, 1947. 39 pp., diagrams. 1s. net, H. M. Stationery Office, London.

*An ordinance to provide for compensation to workmen for injuries suffered in the course of their employment, [Colony and Protectorate of Kenya].* Nairobi, Government Printer, 1947. 21 pp.

### Industrial Hygiene

*New challenges for the industrial hygienist.* By Edward E. Dart, M.D. (In *National Safety News*, Chicago, February 1947, pp. 24, 25, 62, et seq., bibliography. 60 cents.)

Recent health hazards in six fields of industry are briefly described.

*Clean air (removal of dusts). Phenol.* Washington, U. S. Department of Labor, Division of Labor Standards, 1947. 24 and 20 pp., bibliographies. (Controlling chemical hazards series, Nos. 7 and 8.) 10 and 5 cents, respectively, Superintendent of Documents, Washington.

*Essential safeguards in production and use of atomic energy.* By John E. Wirth, M.D. (In *Occupational Medicine*, Chicago, November 1946, pp. 428-438, illus. 75 cents.)

Describes the highly technical program deemed necessary to protect workers (as well as the surrounding community) against exposure to radioactive hazards. An educational program is essential for all personnel as to harmful effects of radiation, tolerances of exposure, and proper use of adequate equipment (including protective clothing and monitoring devices).

*Occupational dermatoses in aircraft workers—chromate dermatitis.* By Francis A. Ellis, M.D. (In *Occupational Medicine*, Chicago, November 1946, pp. 452-462. 75 cents.)

Medical report on a group of wartime workers exposed to chromates in paints, paste, and tape.

*Régimen legal del seguro de silicosis y de las enfermedades profesionales [in Spain].* Madrid, Instituto Nacional de Previsión, 1946. 160 pp. (Publication No. 653.)

*Industrial Relations*

*A national labor policy.* By Harold W. Metz and Meyer Jacobstein. Washington, Brookings Institution, 1947. 164 pp. \$2.25.

Starting with a historical summary of Federal activity in the labor field, the authors appraise Government policy toward organized labor in recent years, and analyze major issues in the present labor situation. They define the Nation's economic objectives and discuss the part which, in their opinion, organized labor should take in the fulfillment of these objectives. Provisions of existing labor laws and various aspects of the work of the National Labor Relations Board are discussed. Rejecting compulsory arbitration as a means of settling labor disputes, the authors conclude that the best means to industrial peace is collective bargaining between each company and its employees, with unions as well as companies subject to anti-trust laws, and with unions and employers obliged by law to bargain collectively.

*Industry and labor advisory committees in the National Defense Advisory Commission and the Office of Production Management, May 1940 to January 1942.* By Edythe W. First. Washington, U. S. Civilian Production Administration, 1946. 233 pp.; processed. (Historical reports on war administration: War Production Board; Special study No. 24.)

*Management rights in labor relations.* By Stephen F. Dunn. Grand Rapids, Mich., Woodbeck Publishing Co., 1946. 304 pp., bibliography. \$5.

Reference guide for employers on their rights in dealing with unions as distinguished from direct dealings with their employees. Illustrative court decisions are cited.

*Foresights in collective bargaining.* By Royal Parkinson. Boston, Associated Industries of Massachusetts, 1946. 174 pp.

An industrial relations consultant and adviser to the Associated Industries of Massachusetts, for whose members the study was prepared, discusses the background of collective bargaining and presents sample clauses from labor contracts, with comments.

*Steel makers: 1937-47; a review of the first decade of collective bargaining in the Nation's basic industry, and the changes it has wrought.* By Kathryn Close. (In Survey Graphic, New York, March 1947, pp. 181-186, 219-223. 40 cents.)

*The arbitration of labor disputes.* By George W. Taylor. (In Arbitration Journal, Vol. 1 (new series), No. 4, New York, winter 1946, pp. 409-414. \$1.)

Calls attention to new aspects and potentialities of arbitration of labor disputes.

*Arbitration of labor disputes—cases from an arbitrator's files.* By Samuel R. Zack. Great Neck, N. Y., Doniger & Raughley, 1947. 240 pp. \$2.50.

*Twelfth annual report of the National Mediation Board, including the report of the National Railroad Adjustment Board, for the fiscal year ended June 30, 1946.* Washington, 1947. 77 pp., paster. 20 cents, Superintendent of Documents, Washington.

The report of the National Mediation Board deals with operations under the Railway Labor Act and amendments extending its coverage to commercial air lines.

*Wartime handling of labor disputes.* By Edwin E. Witte. (In Harvard Business Review, Vol. XXV, No. 2, Boston, winter 1947, pp. 169-189. \$1.50.)

*German labor courts.* By Frieda Wunderlich. Chapel Hill, N. C., University of North Carolina Press, 1946. 252 pp., bibliography. \$3.50.

Includes a chapter on "The labor courts in the German judicial system," by Ernst Fraenkel.

*Enforcement of collective bargaining agreements in Swedish law.* By Folke Schmidt and Henry Heineman. (In University of Chicago Law Review, Chicago, February 1947, pp. 184-199. \$1.)

### Labor Organizations and Activities

- Protection of labor union funds by members' representative suits: Massachusetts practice.* By John A. Perkins. (In *Boston University Law Review*, Boston, Mass., January 1947, pp. 1-32. \$1.)
- Union security.* Princeton, N. J., Princeton University, Industrial Relations Section, March 1947. 4 pp. (Selected references, No. 14.) 10 cents.
- The Canadian labor movement—an historical analysis.* By Margaret Mackintosh. (In *Canadian Welfare*, Ottawa, December 1, 1946, pp. 3-11; also reprinted.)
- Directory of labor organizations in the Territory of Hawaii.* Honolulu, Department of Labor and Industrial Relations, Bureau of Research and Statistics, March 1947. 14 pp.; mimeographed. (No. 10.)
- Organization of our agricultural workers [in India].* By A. M. Lorenzo. (In *Indian Journal of Social Work*, Byculla, Bombay, December 1946, pp. 204-213. \$1 in the United States.)
- Textile trade unionism in Bombay.* By P. D. Kulkarni. (In *Indian Journal of Social Work*, Byculla, Bombay, December 1946, pp. 224-238. \$1 in the United States.)
- Histadrut—General Jewish Labor Federation of Palestine.* By Bernard D. Weinryb. (In *Palestine Affairs*, American Zionist Emergency Council, New York, February 1947, pp. 16-20.)
- Russian trade unions and their national effort.* By J. Mandeville. (In *Industry Illustrated*, Westminster, England, January 1947, pp. 16-18. 2s.)
- English-language version of the 20-point program adopted in April 1946 by the All-Union Central Council of Trades Unions of the Soviet Union, for cooperation in the fulfillment of the new Soviet 5-year plan.

### Occupations

- Outdoor jobs for men.* By Vocational Guidance Research. New York, Vanguard Press, Inc., 1947. 273 pp., bibliography, illus. \$2.50.
- Opportunities for establishing new businesses in aviation.* By Richard H. Rush. Washington, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, 1946. 236 pp., illus. (Industrial series, No. 63.) 40 cents, Superintendent of Documents, Washington.
- Employment outlook for business machine servicemen.* Washington, U. S. Bureau of Labor Statistics, 1947. 11 pp., illus. (Bull. No. 892.) 15 cents, Superintendent of Documents, Washington.
- Jobs in industrial relations: A description of some of the principal industrial relations jobs in labor and business organizations.* By Philip H. Kriedt and Margaret Bentson. Minneapolis, University of Minnesota, Industrial Relations Center, 1947. 57 pp., pasters. (Bull. No. 3.) 15 cents.
- Personnel administration.* By Clark C. Sorensen. *Salesmanship.* By Walter J. Horvath. *Astronomy.* By Freeman D. Miller. Boston, Bellman Publishing Co., Inc., 1947. 23, 23, 32 pp., respectively; bibliographies. (Vocational and professional monographs Nos. 70, 71, 72.) 75 cents each.

### Personnel Management

- Keeping employees informed.* By Henry E. Hansen. (In *Conference Board Business Record*, National Industrial Conference Board, Inc., New York, February 1947, pp. 43-49.)
- The operation of job evaluation plans—a survey of experience.* By Helen Baker and John M. True. Princeton, N. J., Princeton University, Industrial Relations Section, 1947. 111 pp., bibliography. \$1.50.
- The placement interview for transit employees—a manual of instruction. Selection and employment of transit operating personnel.* By G. U. Cleeton, M. A. Kraft, R. F. Royster. New York, American Transit Association, 1946. 45 and 51 pp., forms.



*Selection and placement of new employees.* Melbourne, etc., Department of Labor and National Service of Australia, Industrial Welfare Division, 1946. 38 pp., illus. (Bull. No. 9.)

### Social Security

*Annual report of the Federal Security Agency, for the fiscal year 1946.* Washington, 1947. 533 pp.

Contains, among other data, the reports of the U. S. Public Health Service (including the industrial hygiene sections), Office of Education, Office of Vocational Rehabilitation, and the Social Security Board. The report of the latter includes a summary of recommendations as well as details concerning the various insurance systems administered by the Board. Reports of the agencies mentioned have also been issued separately.

*Characteristics of State plans for old-age assistance, aid to the blind, aid to dependent children.* Washington, Federal Security Agency, Social Security Administration, Bureau of Public Assistance, 1946. 103 pp. 35 cents, Superintendent of Documents, Washington.

Tabular summary of legal provisions, by State, as to eligibility for benefits, payments, administration, and costs.

*Your community—its provision for health, education, safety, and welfare.* By Joanna C. Colcord; revised by Donald S. Howard. New York, Russell Sage Foundation, 1947. 263 pp. 3d ed. \$1.50.

Background material and suggestions for study of a community in its major social and economic aspects. Contains chapters dealing with the worker, medical care and health insurance, housing, the physically handicapped, and racial minorities.

*El seguro social en Bolivia.* By Migue Angel Cespedes. (In Previsión Social, Ministerio de Salubridad, Previsión y Asistencia Social, Santiago, Chile, October-December 1946, pp. 395-406.)

*Beretning fra Invalidforsikringsretten for aaret 1945.* Copenhagen, 1946. 167 pp., posters, charts, illus.

Report of the Invalidity Insurance Court of Denmark, including a historical sketch of invalidity insurance from 1921 to 1945 and comprehensive statistics for the year 1945. A chapter in English describes the invalidity insurance system and the organization and functions of the Invalidity Insurance Court.

*Le problème des travailleurs indépendants dans la cadre de la législation de sécurité sociale.* By Jean Datain. (In Revue Française du Travail, Ministère du Travail et de la Sécurité Sociale, Paris, February 1947, pp. 121-133.)

Study of technical problems involved in extending the French social-security system to provide old-age insurance for independent workers and other persons not previously covered, under terms of legislation of May 22 and September 13, 1946 (effective January 1, 1947), with details on old-age benefits for persons already insured.

*The social security movement in India.* By A. N. Agarwala. (In Economic Journal, London, December 1946, pp. 568-582. 7s. 6d. net.)

### Veterans' Affairs

*Annual report of Administrator of Veterans Affairs, for fiscal year ended June 30, 1946.* Washington, U. S. Veterans Administration, 1947. 202 pp., charts. 35 cents, Superintendent of Documents, Washington.

Among the subjects treated are education, vocational rehabilitation, and retirement allowances for veterans.

*Veteran employment trends in Navy.* Washington, U. S. Navy Department, Office of Industrial Relations, Personnel Studies and Statistics Branch, 1947. 40 pp.; processed.

Graphic and statistical presentation of facts concerning veteran employment in the Navy, Marine Corps, and private industry.

*Veterans and small business.* Washington, U. S. Department of Commerce, Office of Small Business, 1947. 86 pp., charts, illus.; processed. 30 cents, Superintendent of Documents, Washington.

Collection of articles that have appeared in Domestic Commerce, brought together owing to the desire of veterans for a compact presentation of the material.

*Job training for Michigan veterans—a manual of information.* Lansing, Department of Public Instruction and Office of Veterans' Affairs, 1946. 48 pp.

*First annual report of Rhode Island Veterans' Retraining and Reemployment Committee, 1946.* Providence, [1946]?. 29 pp.

Traces the development of the movement to form such a committee, and its work since it was organized in 1944. Activities have included the formation of local machinery for consultation, training, and the establishment of clinics.

### *Wages, Salaries, and Hours of Labor*

*Wage structure, Series 2, No. 32: Hosiery, 1946.* Washington, U. S. Bureau of Labor Statistics, 1947. 54 pp.; processed. Free.

Other reports recently issued in this series give data on wages in the manufacture of the following products: Jewelry, 1946; paperboard containers and boxes, 1945; pulp, paper, and paperboard, 1945; soap and glycerin, 1946; and wood furniture, 1945.

*Union wage scales, local transit operating employees, July 1, 1946.* Washington, U. S. Bureau of Labor Statistics, 1947. 27 pp.; mimeographed. Free.

*Office workers salaries, San Francisco Bay area.* San Francisco, San Francisco Employers Council, 1946. 22 pp., charts.

Shows salaries in August 1946, by occupation, as compared with August 1945 and November 1942. A supplementary report gives figures as of February 1, 1947.

*A study of salary schedules of school clerks and secretaries by the Superintendent's Salary Committee, Flint Public Schools.* Flint, Mich., October 1946. 27 pp.; processed.

*Scheduled salaries for social work positions in hospitals in New York City, December 1946.* By Ralph G. Hurlin. New York, Russell Sage Foundation, 1947. 42 pp. 40 cents.

Summary data for 625 social workers in 95 hospitals.

*Salary and wage administration in the public service—a selected list of references.* Washington, U. S. Civil Service Commission, Library, December 1946. 50 pp.; processed. (Pamphlet No. 22.)

*Basic criteria used in wage negotiations.* By Sumner H. Slichter. Chicago, Chicago Association of Commerce and Industry, 1947. 56 pp. 50 cents.

The importance and the economic implications of wage criteria, and interrelationships of wages, prices, employment, and production, are discussed. Emphasis is placed on the need of a revolutionary advance in economic education to acquaint the general public with the economic implications of the various criteria used in fixing wages.

*Estadística del salario en Ciudad Trujillo, noviembre de 1945.* Ciudad Trujillo, Dirección General de Estadística, 1946. 68 pp., charts; processed.

According to the introduction to the report, it contains the first published statistics on remuneration of labor in the Dominican Republic. Data are given by industry, occupation, sex of workers, and other break-downs. The text of the country's minimum-wage law is included.

*Enquête sur l'absentéisme dans les entreprises.* (In *Revue Française du Travail*, Ministère du Travail et de la Sécurité Sociale, Paris, December 1946, pp. 819-826, chart.)

Study by the Ministry of Labor's statistical office of absenteeism in French manufacturing industries during the week of May 20-25, 1946. Shows that out of 132 million work hours, 12.6 million hours were lost. Almost two-thirds of the loss was caused by illness on medical certification and by paid leave, and more than one-third by absence without specified cause. Analyzes absenteeism by sex of worker, industry, region, size of enterprise, etc.

*Estatística agrícola, 1945.* Lisbon, Instituto Nacional de Estatística, 1946. 209 pp.

This statistical report on agriculture in Portugal includes data on wages of male and female agricultural workers in 1945 by major crop and type of work performed.

### *Women in Industry*

*Careers for women.* By Lillian D. Millar. Boston, Bruce Humphries, Inc., 1946. 94 pp. \$1.25.

Fifteen occupations are discussed briefly: Commercial artist, dentist, food specialist, journalist, lawyer, librarian, nurse, occupational therapist, optometrist, pharmacist, physical instructor, physician, physiotherapist, saleswoman, and social worker.

*Occupational planning for college women: Occupational guidance in general education.* Prepared by Occupational Guidance Council, Stephens College. Columbia, Mo., Stephens College, Occupational Guidance Service, 1946. 199 pp. (loose-leaf), chart, forms, illus.

*Selected references on equal pay for women.* Washington, U. S. Department of Labor, Women's Bureau, January 1947. 9 pp.; mimeographed. Free.

*Women's wartime hours of work—the effect on their factory performance and home life.* Washington, U. S. Department of Labor, Women's Bureau, 1946. 187 pp. (Bull. No. 208.) 35 cents, Superintendent of Documents, Washington.

### *General Reports*

*The economic almanac for 1946-47: A handbook of useful facts about business, labor, and government in the United States and other areas.* New York, National Industrial Conference Board, Inc., 1946. 424 pp.

Brings together statistics of the United States Government, and of the National Industrial Conference Board and other nongovernmental agencies, on a wide variety of subjects, including many of labor interest such as employment, the labor force, wages and hours, national income, strikes, production, and productivity of labor.

*Report of the Department of Labor of Canada, for the fiscal year ending March 31, 1946.* Ottawa, 1947. 116 pp. 25 cents.

The report gives particular emphasis to developments connected with the war and reconversion.

*Administration report of the Commissioner of Labor, Ceylon, for 1945.* Colombo, 1946. 75 pp. Rs. 1.50.

Reviews developments with respect to employment and unemployment, industrial relations, trade-unions, labor legislation, and Indian immigrant labor.

*Annual report on the work of the Labor Department, Jamaica, for the year 1945.* Kingston, 1946. 15 pp. 1s. 3d., Government Printer, Kingston.

*Report on the financial and economic position of Newfoundland.* London, Dominions Office, 1946. 46 pp. (Cmd. 6849.) 9d. net, H. M. Stationery Office, London.

Includes data on expenditures for social services, employment in major industries, trade-unionism, and postwar reconstruction schemes.

*The native economies of Nigeria.* By Daryll Forde and Richenda Scott. London, Faber & Faber, Ltd., [1946]. 312 pp., maps. 25s. net.